



SCHOOL OF  
ECONOMICS AND  
MANAGEMENT

# Towards an Ethical Business Model with Artificial Intelligence

A case study from BoKlok Housing AB

By

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# Abstract

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**Keywords:** Ethical Investments; Creating Shared Value; Stakeholder Theory; Artificial Intelligence; Supply Chain Management

**Purpose:** The purpose of this thesis is twofold. With a stakeholder perspective, the paper has the ambition of understanding why firms decide to invest in ethics. In this sense, we look at such investments both through the lens of mitigating downside risks as well as the lens of creating competitive advantage and shared value. In the light of ethical investments, the paper also has the purpose of explaining how artificial intelligence (AI) can be leveraged to monitor and control ethical behaviour among suppliers. Effectively, the level of AI, its role in the organization as well as the benefits that may be derived from it are examined as the second subject of the paper.

**Methodology:** The paper is built on a single case study conducted at the Swedish housing company BoKlok, where the empirical material is gathered through various data sources.

**Theoretical perspectives:** The paper has applied several different theoretical perspectives to answer the purposes. Firstly, Cassimon, Engelen and Liedekerke's (2016) theory of why firms will invest in CSR have been used to answer the papers first purpose. Since Cassimon, Engelen & Liedekerke (2016) utilize a stakeholder perspective, Mitchell, Agle and Wood's (1997) stakeholder theory have be used as a complement. To describe how investments in ethics may constitute a competitive advantage, Porter and Kramer's (2011) creating shared value was added to reach a comprehensive framework for the first purpose. Secondly, Huang and Rust's (2018) four level of AI framework have created the main theory to describe how the AI works and its role in the organization. A literature review complements Huang and Rust (2018) regarding the benefits that could be expected to entail from AI. Lastly, Lewis' (2003) control mechanisms are also utilized to explain the AI's preventive and in-process and recovery controls.

**Empirical foundation:** The empirical foundation is grounded in Yin's (2009) six sources. The main source of data derives from the 10 semi-structured interviews with respondents at the firm, which is accompanied with both internal and external organizational documents and different artefacts collected during our visitation at the company's office in Malmö.

**Conclusion:** The paper finds that investments in ethics constitute both a way of mitigating downside risk and creating a competitive advantage. The main stakeholders that have driven the case company to invest in ethics are private customers, employees and the owners. Furthermore, the AI merely meets the characteristics of the lowest level of intelligence and it generates cost reductions and increased efficiency, quality processes and regulatory compliance. The AI is also set up to have traces of both preventive and in-process control mechanisms.

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# 1. Introduction

## 1.1 Background

The notion of sustainability and Corporate Social Responsibility (CSR) has been established in the literature for decades (Davis, 1960; Carroll 1991; Elkington, 1998; Porter & Kramer, 2006; Porter & Kramer, 2011). Davis (1960, p. 70) defined CSR as businesses' "*decisions and actions taken for reasons at least partially beyond the firm's direct economic or technical interest*". Carroll (1991) advocates that a firm's CSR stretches beyond maximizing economic profits and following legal restrictions. CSR is also about being a good citizen, by meeting and exceeding society's expectations of ethical norms that are not established in law, such as civil rights, environmental impact and anti-corruption. In his classic Triple bottom line, Elkington (1998) divides the firm's responsibility into economic prosperity, environmental quality and social justice responsibilities. That is, CSR requires the companies to pursue a business model that meets the economic, environmental and societal demands amounting from the firms' environment.

Although being discussed for decades, sustainable development and CSR has started to gain stronger traction in society over the last two decades (Lueg & Radlach, 2016). Effectively, organizations are becoming increasingly aware of the importance of CSR as a factor to meet demands and gain competitive advantage (Porter & Kramer, 2006; Porter & Kramer, 2011; Bouten & Hoozée, 2013; KPMG, 2013). Accenture's (2013) study highlights that 93% of the surveyed CEOs deemed sustainability as a key factor for future success. As such, CSR have been incorporated into companies' business strategy and agenda (Lim & Philips, 2008; Porter & Kramer, 2011; Micheline & Fiorentino, 2012; KPMG 2013). For instance, KPMG (2013) found that 83% of the observed companies possess a Corporate Responsibility strategy. Furthermore, Lim & Philips (2008) noticed how Nike use their supplier relationships to force CSR strategies into their supplier operations. Such sustainable corporate actions in the wider social life has previously contrasted to the traditional economic theory, which instructs managers to focus on maximizing shareholder wealth (Margolis & Walsh, 2003).

In fact, incorporating CSR into business strategies and operations have proven to be associated with positive effects on firms' performance and results (Orlitzky, Schmidt & Rynes, 2003; Margolis & Walsh, 2003; van Beurden & Goessling, 2008; Busch & Freide, 2018). That is, the results imply that improving social performance should also mean maximizing shareholder wealth (Margolis & Walsh, 2003; Orlitzky, Schmidt & Rynes, 2003). In a meta-analysis of 52 empirical studies, sampling 33 878 observations in total, Orlitzky, Schmidt and Rynes (2003) found that firms' financial performance is positively related with its social performance. Based on 127 studies spanning from 1972-2002, Margolis and Walsh (2003) came to a conclusion in line with that of Orlitzky, Schmidt and Rynes (2003). van Beurden & Goessling (2008) also added to the literature a few years later, as they conducted another meta-analysis including 34

studies on the topic. A convincing majority of 68% showed a positive relationship between social performance and financial performance, while 26% showed no relationship and merely 6% indicated a negative relationship. Further convincing evidence was presented by Busch and Friede (2018), who conducted a second-order meta-analysis of previous literature to establish the robustness of the positive relationship between social and financial performance.

Despite the evidence of companies incorporating CSR into their business strategies and the positive effects it entails, many managers experience hardships in converting the sustainability strategies into action (Epstein, Buhovac & Youthas, 2010; Porter & Kramer, 2011; Lueg & Radlach, 2016). Epstein, Buhovac and Youthas (2010) stress that companies have problems measuring environmental and societal efforts, while Porter and Kramer (2011) and Lueg and Radlach (2016) pinpoint the conflict between sustainable and financial objectives. In addition, due to the intangible and goodwill-like benefits, Husted (2005) and Cassimon, Engelen and Liedekerke (2016) claim that firms forego CSR investments as they are unable to financially motivate them. Husted (2005) argues that the traditional cost-benefit approaches, such as Net Present Value (NPV), focus too much on positive cashflows, whereas CSR investments have the goal of providing the firm with strategic flexibility to handle downside risks. Effectively, traditional NPV lacks the strategic flexibility which is necessary to account for in CSR investments (Husted, 2005; Cassimon, Engelen & Liedekerke, 2016).

Alongside CSR and sustainability, another trend that has gained traction and interest in the last decades are digitalization and Artificial Intelligence (AI) (Davenport & Kirby, 2015; Davenport & Kirby, 2016; Huang & Rust, 2018; Zovko, 2018; Kokina & Blanchette, 2019; Sanders, Boone, Ganeshan & Wood, 2019). According to Davenport and Kirby (2015), one reason for the increased interest is the fact that AI has allowed knowledge work to be automated by robots. Davenport and Kirby (2015, p. 60) defines knowledge work as “*work that is more mental than manual, involves consequential decision making, and has traditionally required a college education*”. Such work has previously constituted the higher level of work that humans have obtained when robots have taken over less cognitive tasks. Ultimately, workers employed in knowledge work industries will be forced to evolve and focus more on tasks requiring higher levels of mental intelligence, as robots learn to conduct the easier service tasks (Davenport & Kirby, 2015; Davenport & Kirby, 2016; Huang & Rust, 2018). As of that, employees have to integrate and collaborate with the robots when performing their work (Davenport & Kirby, 2015; Huang & Rust, 2018).

As AI develops to be more sophisticated, it has not only imposed changes for human labour, but also presented companies with a multitude of benefits to be reaped from it (Davenport & Kirby, 2016; Lacity & Willcocks, 2016a; Kokina & Blanchette, 2019; Wall & Krummel, 2020). The benefits of AI have been noticed in several different industries and contexts. For instance, Lacity and Willcocks (2016b) examined the telephone operator Telefonica O2 who were able to reap extensive cost saving while also improving the speed and quality of their back-office processes. Kokina and Blanchette (2019) and Tschakert, Kokina, Kozlowski and Vasarhelyi (2016) also investigated the benefits of AI but instead with focus on the accounting and auditing industry, where they found results similar to those of Lacity and Willcocks (2016b). Wall and Krummel



(2020) have examined the surgical operations of hospitals to find how AI, such as big data, have improved the quality of surgeries, as the robots can extract insights from data that go beyond human capabilities.

## 1.2 Problem

CSR and sustainability have become an increasingly important topic in today's society. Firms have also acknowledged the trend and incorporate different sustainability initiatives into their business strategies. However, as previously stated, turning sustainable strategies into sustainable actions have proven difficult as firms experience hardship to make such investments economically defensible with traditional NPV modelling. To account for the strategic flexibility lacking in NPV, Husted (2005) was among the first researchers to acknowledge Real Option theory as a more suitable method to value CSR investments. Husted (2005) argue that CSR investments require a more flexible approach to calculate the investment's present value, which is not so strictly cashflow driven as the NPV, including both quantitative and qualitative approaches.

Husted's (2005) theory of CSR investments is developed by Cassimon, Engelen and Liedekerke (2016) to describe why firms will invest in CSR. Cassimon, Engelen and Liedekerke (2016) also emphasize that each decision to invest in a CSR project is accompanied with an opportunity cost for the firm. The opportunity cost constitutes all risks and possibilities that entails from delaying the investment. The risks may for instance include losing first mover advantage or market shares, while the benefits of postponement derive from the opportunity to gather further information. Losing out on being a CSR first mover is also an important opportunity cost as it allows the firm to be the role model against which the industry is benchmarked, effectively allowing the firm to reinforce and embed the firm's reputation among its stakeholders (Sirsly & Lambertz, 2008). As such, the CSR investment's expected value must exceed both the investment cost and the value of waiting, otherwise, the investment will be postponed to the future. However, after testing their theory on a case on IHC Caland, Cassimon, Engelen and Liedekerke (2016) calls for further empirical research to test the theoretical predictions of why and when firms invest in CSR.

Porter & Kramer (2011) goes further than Cassimon, Engelen & Liedekerke (2016) as they stress that firms need to rethink how they design their business strategy. Porter and Kramer (2011) argue that CSR is outdated as they present the Creating Shared Value (CSV) theory, which breaks the paradigm that profit maximization and doing good for the society is in contradiction to each other. Rather, CSV concludes that investments in the firm's environment may constitute a competitive advantage as the infrastructure around the firm is strengthened. That is, CSV is about increasing the value for both society and the firm at the same time, as increased value creation for society spills over back to the firm. Porter and Kramer (2011) recognize CSV as the new form of capitalism, where the right profits are pursued. Since its introduction, CSV have been subject to several empirical settings (Spitzeck & Chapman, 2012; Camilleri, 2017; Alberti & Belfanti, 2019), but further empirical evidence could still be fruitful to establish the theoretical assumptions.

Simultaneously, AI have started to change the working landscape of knowledge work, where robots previously have been unable to cope with the complex tasks. AI have also provided companies with new possibilities to improve their operations, generating cost savings along with e.g. increase quality and efficiency. Huang & Rust (2018) presents four different characteristics that AI may possess, representing varying levels of advanced AI, spanning from the mechanical level as a low and the empathetic level as a high. At the mechanical level, the AI is merely capable of doing repetitive tasks without understanding the data or its environment, while the empathetic AI is very similar to human beings as they are able to express emotions and feelings. Huang & Rust (2018) also argue that more advanced levels of AI will require more time and effort to develop and implement into organizations.

Within supply chain management, Sanders et al. (2019) have identified several ways that practice have adopted AI to improve the sustainability of their supply chains. Firstly, AI can be used to track customer behaviour and analyse buying patterns to allocate products and quantities to the right places, thus, reducing unnecessary transportation. Secondly, AI can improve the speed and quality of manufacturing processes to assure a more effective resource utilization. AI has also allowed transportation activities to improve through better transportation planning as traffic can be analysed in real time, but also through autonomously driving cars (Sanders et al., 2019). Lastly, new technology can be used to positively impact companies sourcing activities, such as optimizing contracts, transparency, collaborative planning and tracing products that improve efficiency and safety. The perspective of transparency has also progressed firms' supply chain risk management as environmental, economic and societal performance of suppliers can be easier monitored (Sanders et al., 2019).

Although stressing the opportunity to monitor various dimensions of suppliers' performance to improve risk management, Sanders et al. (2019) give no concrete examples as of how AI have been used to monitor ethical behaviour of suppliers. Neither have we been able to identify any other literature that provides examples on the subject, which may be explained by the fact that most research on sustainability tends to focus on environmental issues rather than societal (Seuring & Müller, 2008). Another explanation could be that much of the current attention within ethics and AI have been directed towards the ethical dilemma that arises when the AI robot fail to conduct its task correctly (see e.g. Zeng, 2015; Stahl & Wright, 2018). As of that, the literature on the topic seems to be scarce, effectively creating a research gap to be filled. Meanwhile, supply chains constitute a major source of competitive advantage and brand building (Slone, 2004; Feizabadi, Gligor & Alibakhshi Motlagh, 2019). Companies embrace CSR efforts within their supply chains to address criticisms directed towards the firm for bad conditions at subcontractors' factories (Lim & Philips, 2008). However, transferring CSR efforts to the suppliers have proven a problematic quest, as supplier compliance tends to be elusive (Lim & Philips, 2008; Soundararajan & Brown, 2016). As such, to uphold a functioning supply chain and remain competitive, there is a necessity to provide practitioners with solutions as to how AI can be leveraged to monitor suppliers and achieve compliance for ethical initiatives.

## 1.3 Purpose

With a stakeholder perspective, this paper has the intention of contributing to the literature with empirical material on the research topic set out by Cassimon, Engelen and Liedekerke (2016). As such, the purpose of the thesis is to increase the understanding of what is driving firms to invest in CSR projects. In the quest of understanding why firms invest in CSR, the paper will also apply Porter and Kramer's (2011) CSV perspective to highlight how shared value creation can foster such initiatives, leaving a contribution as to how CSV has been adopted in reality. By shedding light upon the research topics, the aim is also to highlight the benefits of CSR investments for practice. Rather than focusing on all perspectives of CSR and sustainability, the paper will concentrate on investments in ethical issues, as our case company BoKlok (through its parent company Skanska) have recently decided to invest in ethics through the screening tool (Skanska, 2020a). Knowing that BoKlok has already invested in ethics, we assume that the firm has currently experienced a situation where the expected value of investing in ethics has exceeded both the investment cost and the value of waiting. Understanding which factors that have sourced such a change is therefore suggested to be of main interest to the paper. In this context, the stakeholder perspective will be used to explore what has driven the company to invest in ethics, causing the expected benefits of the investment to be bigger than its cost plus the opportunity cost.

Furthermore, BoKlok's screening tool operates as an automatic process to assess the firm's suppliers, thus constituting AI (Skanska, 2020a). As supply chains have proven to be a great source of competitive advantage (Slone, 2004; Feizabadi, Gligor & Alibakhshi Motlagh, 2019), this paper intends to extend the currently scarce body of literature and fill the identified void on how AI can be utilized to monitor suppliers and establish ethical supply chains. With Huang & Rust's (2018) framework as starting point, the screening tool's level of AI and functionality will be explored to increase the understanding of AI's benefits relating to supply chain management. By examining the screening tool's functionality within the organization, the paper will not only offer a rare empirical contribution to the literature but also an important depiction for practitioners as to how they can use modern technology to improve their businesses and supply chains.

Hence, with the presented purpose, the paper aims to answer following empirical questions:

*Q1: Why do BoKlok invest in ethics?*

*Q2: How does BoKlok utilize artificial intelligence to monitor ethical behaviour in their supply chains?*

## 1.4 Outline of the Paper

The remaining of the paper is organised as follows. The following chapter, Chapter 2, presents the research methodology utilized for our case study at BoKlok. Chapter 3 presents the most relevant theoretical framework upon which the case study is founded, including a valuation model for CSR investments, creating shared value, stakeholder theory, different levels of AI, the benefits

of AI as well as risk control mechanisms. Subsequently, Chapter 4 contains the empirical findings that have been gathered from our visitations at the company, organizational documents and interviews conducted with employees at BoKlok to answer the research questions. Furthermore, in Chapter 5, the theoretical framework is applied with relevance to the empirical material, to analyse and identify why BoKlok have invested in ethics and how the screening tool helps the company in securing ethical supply chains. Finally, Chapter 6 rounds of the paper with concluding remarks, including conclusion, contributions and future research. A discussion of the results is also provided in Chapter 6.

## 2. Methodology

### 2.1 Single Case Study

Given the form of the research questions in this essay, a case study was deemed the most fitting research method. The main purpose of this study being to explain why companies invest in ethics and how AI can be utilized to secure an ethical supply chain, which motivates a case study approach (Yin, 2009). Additionally, as described in the introduction, business ethics and CSR has become a more contemporary topic both in research and organizations worldwide, which further motivates a case study according to Yin (2009). The case company, BoKlok Housing AB, was also considered an adequate study object regarding the research topic of CSR due to the fact that BoKlok's parent company, Skanska AB, was listed as a Sustainability All Star in 2019 by Fortune (n.d.). Thus, the case study was conducted with the intent of finding out why the company is investing in CSR and sustainability activities. In addition, the automated screening tool that monitors various sanction lists presented an opportunity to study how AI and digital appliances can be used to support CSR and ethics work.

Another reason as to why a single case study was conducted in favour of a multiple case study is based on the amount of access and insight we had into the case company BoKlok Housing AB, which made it possible to create a case study with access to several key informants. The same research design would be very difficult to execute with other case companies. Given the prerequisites of this essay, we ultimately decided to proceed with a single case study as to not sacrifice depth and deeper insight in favour of constructing additional cases.

The data sources used in this study were based on Yin's (2009) six sources of evidence. The majority of data was gathered through interviews and the rest were collected from documents such as the annual report and internally published documents within the Skanska Group. Additionally, physical artefacts were also utilized to enhance the cultural structures that exist within the organization and at the BoKlok office.

It should also be disclosed that one of the authors of this report has been employed by BoKlok Housing AB for two and a half years. The upside of this being that one of us had previous knowledge of different organizational processes within the company, which decreases the risk of misunderstanding between us and the interviewees. Considering the short timeframe of this project, having a pre-established relationship with the case company allowed us to get closer to both the interviewees, but also let us get to know the organization. Since it can be problematic to schedule meetings with the interviewees when conducting case studies (Yin, 2009), having access to their Microsoft Teams as well as contacting each interviewee weeks before the project started made the scheduling of appointments much more uncomplicated. During the interviews, the respondents also felt more relaxed and opened up more than they perhaps would have if we were complete strangers. Another added benefit was that we were already accustomed to the interviewees working environment, which made it easier to understand how their answers fit in with the organizational setting (Bryman & Bell, 2011). They also seemed more open with what

they would bring into the discussions, being more critical and outspoken in certain manners than what they otherwise might have been. However, there is also an apparent risk of bias in the sense that the author has adopted the organization's values and might unknowingly present the case company from a certain point of view. This is mitigated to the extent possible as all decisions have been discussed among the two authors, and the second author, who is not associated with the company, has continuously throughout the project reviewed the drafts of the case study report with the intention of identifying such biases.

A downside to conducting a single case study instead of a multiple case study is the lack of generalizability, where a multiple case study would provide more organizational study objects to test the theoretical framework (Yin, 2009). However, as the objective of this report is to test the theories developed by Cassimon, Engelen and Liedekerke (2016), Porter and Kramer (2011) and Huang and Rust (2018), the single case approach is arguably sufficient. The propositions presented by said theories are tested against the case company, which possesses the appropriate conditions to adequately test the theories (Yin, 2009). Qualitative empirical research can be theorized in five different levels according to Llewelyn (2003). In this case, the theorization is mainly made through theorizing practice and refinement of existing concepts, which align with Llewelyn's (2003) level three of concept theories. Although, the research question of why BoKlok invest in ethics could also be argued to approach level four of theorization, as it theorizes the setting in which the investments are made, explaining the underlying social phenomena and environmental relationships (Llewelyn, 2003). BoKlok's investments towards strengthening its business ethics and the driving forces behind those decisions are thus able to test the propositions of the theories in relation to the context were these are presumed to be true.

## 2.2 Validity and Reliability

In order to assess the degree of quality of the essay, the four tests for establishing the quality of empirical social research presented in Yin (2009) have all been considered. The four tests are as followed: construct validity, internal validity, external validity, and reliability. Each of these tests are individually discussed in detail below.

### 2.2.1 Construct Validity

In order to assure a sufficient degree of validity and reduce the investigators' bias, multiple sources of evidence were incorporated into the case study. As stated in 2.1, three out of Yin's (2009) six sources of evidence were used to collect data for the case study, namely interviews, documents, and physical artefacts.

Interviews were chosen as the major source of data as organizational decisions, such as whether to invest into ethics or not, are based on human decisions. Additionally, the screening tool was installed to help with tasks performed by personnel within the organization. Most interviews conducted were in the form of focused interviews whereas a few were more in-depth interviews (Yin, 2009). All interviews were conducted in Swedish due to the fact that both the interviewers and the interviewees are all Swedish. This felt most natural in order to ensure the best

understanding between the two parties, as well as keeping the interviews more relaxed. The data presented in the empirical findings have been translated by the interviewers. The in-depth interviews were made with three key-informants, which they are considered as due to their influence and insight in strategic and ethical matters within the case company, who are all members of the management team. The first key informant, namely Jonas Ande, is head of the HR department and responsible for ethics, and thus responsible for the screening tool at BoKlok. Besides Jonas Ande, the interviews with the CEO of BoKlok, Jonas Spangenberg, and CFO, Lars Gath, were also a part of the in-depth interview sessions. These three informants could therefore give input from a strategic point of view and provide information regarding the organizational decisions made related to CSR, ethics and the screening tool itself. The interviews were each around forty-five minutes long, where they were encouraged to speak freely about BoKlok's CSR and ethics initiatives and how the screening tool is supposed to benefit those initiatives. In a pre-interview meeting, Jonas Ande also suggested other persons that were relevant to interview. Additionally, the three key informants shared documents with relevant information as well.

The rest of the interviews, seven in total excluding the three key-informants, were made with employees in different operational segments within BoKlok. Most interviews were made with people who work with different types of suppliers, since the screening tool is currently only used on suppliers and not customers for example. Appendix A provides a list of all respondents, including their respective position at BoKlok as well as a brief background of their history within the organization and the construction industry. Interview time varied between twenty to thirty minutes and with questions extracted from the case study protocol (which is explained more in detail in a later chapter), but the interviewees were still encouraged to speak freely about CSR, ethics, and the screening tool. The main objective with the focused interviews was to analyse whether the information given by different organizational members corroborate or differs from one another (Yin, 2009).

All interviews, except the one with CEO Jonas Spangenberg, were conducted as phone interviews. This was mostly due to the fact that some of the interviewees were working from geographically remote locations in Sweden. Furthermore, those interviewees situated on geographically convenient distance worked from home during the time the interviews due to the present Covid-19 pandemic. All respondents granted permission to record the interviews, as well as approval of using their respective titles and names in the report. The interviews were later transcribed to enable more comprehensive analysis of the data as well as mitigating the drawbacks of having to rely solely on our memory (Bryman & Bell, 2011). Continuous mail conversations with the respondents were used to clarify any uncertainties still existing after the interviews were transcribed or arose during the forthcoming process.

To help verify information given by the interviewees and mitigate bias accompanying interviewees' responses (Yin, 2009), data has also been collected from documents. The documents used consist of written reports and administrative documents, both available to the public (e.g. the annual report) and documents published by Skanska for internal use within the whole group. The documents' role is to give an indication on how well the facts given by the interviewees corroborate with the information in the documents (Yin, 2009). Since the documents

are produced by the owners of BoKlok, they help paint a picture of the context and limitations within the case company and its employees has to operate and act.

As a final data source, physical artefacts were also collected as evidence to back up the cultural importance of business ethics that both the interviewees and documents presented. Standalone, these artefacts are not considered sufficient data sources, but their function is to enhance the cultural aspects of ethics and emphasize the jargon that exists within the firm (Yin, 2009). The artefacts used in this report are taken from observations when conversing with the interviewees, mostly directed towards what language and concepts they used when talking about ethics, as well as observations made when visiting their office in Malmö, Sweden.

The main type of triangulation used in this project was the use of different data sources (Yin, 2009). The main purpose of using different sources, i.e. interviews and documents, were to verify if the facts produced from the interviews are supported by the documents produced by Skanska's management. Evidently, the interviews and organizational documents ended up corroborating each other's facts in a satisfactory manner. The few questions that were raised after studying both sources were cleared up by a Development Leader of purchasing appliances at Skanska via e-mail. The physical artefacts helped us in corroborating the data in the sense that they give an indication or feeling of how deeply rooted the concepts regarding ethics are inside the organization and the attitudes of the employees, i.e. is the emphasis of business ethics just empty promises and window dressing or does physical evidence exist to back up those statements?

### 2.2.2 Internal Validity

As this case study is grounded on the theoretical propositions presented in the theory chapter, influencing the research question, choice of literature, and the data collection process, the analytical strategy also follows these theories. The data collection and theoretical propositions discussed essentially stem from "how" and "why" questions (this is further explained in the reliability section below) and are guiding the analysis (Yin, 2009). A qualitative content analysis (Bryman & Bell, 2011) was applied to help select the most relevant data for the analysis of the case study. Underlying themes from the data collected from all the data sources used were identified to comprehend which themes were most commonly mentioned or discussed, but to also determine which facts that corroborated and which ones that opposed each other. The empirical chapter is structured according to the themes most applicable to testing the theoretical propositions. The analysis chapter was then constructed according to the different propositions in theory chapter and tested against the themes given in the empirical section.

### 2.2.3 External Validity

To answer the empirical research questions, a literature review was conducted to establish a necessary theoretical framework. As is most appropriate for inductive approaches, a narrative review was undertaken to get an initial impression of the intended research area to be studied (Bryman & Bell, 2011). The narrative approach was also deemed as most appropriate for this specific study, since the screening tool as a research object was quite clear on beforehand,



especially after our upfront conversation with Jonas Ande. As such, the aim was to understand how the screening tool was related to current literature. The review was mainly accomplished through the Lund University Libraries' database LUBsearch with the help of several different keywords, although Google Scholar has also provided a valuable complement. The most commonly used keywords include *Artificial Intelligence; AI; benefits; Corporate Social Responsibility; CSR; ethics; stakeholder* and *control mechanism* (see appendix B for a comprehensive list of all keywords used in the literature review). In addition to the utilization of keywords, the reference lists of relevant articles were scanned to identify further applicable literature.

In the initial review, Cassimon, Engelen and Liedekerke's (2016) article was found, applying a stakeholder perspective to provide a theoretical explanation of why firms will invest in CSR. The explanation builds on an appealing theoretical formula of expected value, investment cost and opportunity costs, further described in chapter 3.1 of the theoretical framework. The formula will thus be used to establish why BoKlok have decided to invest in ethics. As of the paper's ambition to contribute to Cassimon, Engelen and Liedekerke's (2016) research question of why firms invest in CSR, it was logical to also apply a stakeholder theory in this sense. Effectively, the stakeholder theory will be used in combination with the theoretical formula to identify those stakeholders that have been most pivotal to increase the expected value of CSR investments at BoKlok.

At the same time, with the purpose of investigating how AI can be used to secure an ethical supply chain, another theoretical ground was needed. In this matter, the initial review identified Huang and Rust's (2018) four level of AI framework to align with the intention of the paper. As such, based on the AI framework, we will map out what type of AI the screening tool corresponds to and, thus, describe its effective use in BoKlok. However, Huang and Rust (2018) does not sufficiently enough provide an extensive guidance regarding which benefits that AI can entail. To understand how BoKlok's screening tool helps the organization to improve, analysing merely how the screening tools work was not sufficient enough. Consequently, further literature on AI was necessary to establish a literature base for the benefits of AI, which the perceived advantages of the screening tool could be compared against.

As the interviews progressed, we also came to notice how the screening tool had diverse control functions within BoKlok, contingent on the specific supplier. In line with the narrative review approach, an extension of the theoretical boundaries was needed to meet the data collected (Bryman & Bell, 2011). Accordingly, Lewis' (2003) theory of ex ante, in-process and ex post controls was added to the paper's theoretical foundation to complement the initial review. In similar fashion, the necessity of Porter and Kramer's (2011) CSV was becoming clear as the interviews were conducted when it became evident that ethical investments were not merely an instrument for risk management but also a competitive strength. Thus, a theory was needed to describe how ethics can become a competitive advantage, a void filled by Porter and Kramer (2011).

## 2.2.4 Reliability

To properly assess the criteria of reliability, the research process has been documented during the entire project in the form of a case study protocol (Yin, 2009). Moreover, all documents and relevant data has been electronically stored in a case study database (Yin, 2009) in Google Drive, where both authors had access to the material. This chapter addresses both of these and will begin with the case study protocol, which was constructed before the data collection process started. Since this case study was conducted in an inductive manner, the protocol did not state the final research questions or the final theoretical framework used, but rather general questions about the screening tool and how it fits with the company's CSR profile. These general questions were first sent as a case study introduction to Jonas Ande, who then helped by directing us to individuals within the firm who hold positions where the screening tool is supposed to assist them in their daily work. It should also be disclosed that the research topic and the study object, i.e. the screening tool, had been discussed with Ande weeks before the project started. The same briefing was sent to the remaining nine interviewees along with proposed dates for the interviews to be held on. Thus, all interviews were conducted within two to three weeks, at an early stage in the research process.

The questionnaire used during the interviews were essentially based on two questions, *how* and *why*, with the intent to find out how the screening tool works and why it has been implemented into the organization. The intention was to structure the interviews as conversations (Yin, 2009), where the interviewees could speak freely within the boundaries of the *how* and *why* questions. Some follow up questions were also included to get further insight in some specific areas.

One part of the protocol consists of a logbook where decisions regarding the research questions and theoretical frameworks are documented, which provided an outline for the planning process of the written report, as well as the layout and direction of the different chapters and steps in the research process (Yin, 2009).

To further increase reliability, a case study database was enacted in conjunction with the start of the research process. The database contains data from articles published in academic journals, transcriptions of the interviews, and documents or links to websites used as empirical material. In addition, hard copies of printed books have also been used in the report but is not a part of the electronic database. The database was created with the intent of storing the data in its raw form, absent from our narrative given in the report (Yin, 2009). Doing so removes all biases stemming from the authors' narrative and makes it possible for other researchers to access said data. Although, bias from selecting data and constructing interview questions still remains.

Only relying on documents would not be feasible since the screening tool is a recent investment (Skanska, 2020a), and thus, a well-documented database is currently not available in order to study all the relevant aspects of the tool necessary for this project. Using surveys was a different approach that was considered, which could possibly have reached out to more people. However, considering the research questions regarding how the screening tool works and why it was implemented, a survey would be inferior to interviews as it only allows for standardized questions with limitations concerning the depth of the answers (Yin, 2009). It also became apparent that

not many of the interviewees knew either about the screening tool or how it functions, except for the people in the management team, so the benefit of reaching a larger pool of respondents with a survey would probably not have compensated for the more thorough answers given in the interviews.

## 3. Theoretical framework

### 3.1 The Value of CSR Investments

Husted (2005) labels real options theory appropriate to calculate the value of CSR investments as he suggests that such investments are made for the purpose of giving strategic flexibility to handle downside risks rather than generating positive cashflows. Building upon the theory of real options, the value of CSR investments ( $W$ ) is determined by the expected value of the underlying investment project ( $V$ ) minus the cost of the investment project ( $P$ ), as illustrated by Equation 1. To fit the intangibility and strategic flexibility of CSR investments, the model utilizes a flexible method to establish the value of the investment ( $V$ ), as it may vary between quantitative capital budgeting techniques and more qualitative approaches (Husted, 2005).

$$W = V - P \text{ (Equation 1)}$$

Cassimon, Engelen and Liedekerke (2016) develop Husted's (2005) theory of CSR investments by adding a third parameter to the equation, namely the firm's opportunity cost. The opportunity cost refers to those risks and possibilities that arise from postponing the investment. To account for the risks and possibilities in their extended model, Cassimon, Engelen and Liedekerke (2016) include the opportunity cost ( $C$ ) as representing the value of waiting with the investment. By adding the value of waiting to the equation, the initial  $W = V - I$  ( $I = P$  in Husted's (2005) equation above) is to be rewritten to  $C = V - I$ . In this setting, Cassimon, Engelen and Liedekerke (2016) develops two scenarios to describe why firms will invest in CSR, as illustrated by Equation 2:

$$\text{Scenario 1: } C > V - I$$

$$\text{Scenario 2: } C < V - I \text{ (Equation 2)}$$

In the first scenario, firms will postpone their CSR investments as the value of waiting exceeds that of investing now (Cassimon, Engelen & Liedekerke, 2016). In such a scenario, the possibility of gathering more information outweighs the risk of not making the investment, to raise the value of  $C$  above the value of  $V - I$ . The second scenario implies the contrary, that the investment will be undertaken now as the value of  $C$  is less than  $V - I$  (Cassimon, Engelen & Liedekerke, 2016). To further highlight the investment triggers of CSR investments, Equation 2 is rearranged into Equation 3. As such, Equation 3 shows that the value of the CSR investment must not only exceed the investment cost, but also the value of waiting, to be undertaken (Cassimon, Engelen & Liedekerke, 2016):

$$V > I + C \text{ (Equation 3)}$$

This reasoning follows the logic that the strategic flexibility is lost once the investment is made (Cassimon, Engelen & Liedekerke, 2016). That is, the value of having options today must be added to the investment as an opportunity cost. The value of  $C$  is driven by the environmental uncertainty that the firm is facing, as higher uncertainty will increase  $C$ . This implies that

maintaining the strategic flexibility is more desirable when the firm is confronted with many uncertainties, which aligns with Husted's (2005, p. 177) perception that investments will be deferred until "*the nature of an uncertainty has revealed itself*". However, Cassimon, Engelen and Liedekerke (2016) also recognize that firms may be exposed to threats while waiting which counteract the uncertainty to lower C, shifting the investment to be made earlier. In the context of CSR, investments have the possibility of attracting stakeholder support (Cassimon, Engelen & Liedekerke, 2016). As the value of the CSR investment (V) represents the present value of the expected benefits, it is to a large extent driven by stakeholder pressure. If the company refrain to invest in CSR, key stakeholders may withdraw their support and disengage. That is, the benefits of investing in CSR increase as the pressure from major stakeholders' amounts (Cassimon, Engelen & Liedekerke, 2016).

### 3.2 Creating Shared Value

Companies are being accused of prospering at the expense of society and, thus, being the main reasons for social, economic and environmental issues in today's society (Porter & Kramer, 2011). As a result, the legitimacy and trust of business has fallen to levels not experienced in modern history. Porter and Kramer (2011) argue that business and society has been pitted against each other, as societal benefits only can come at the expense of sacrificing economic profits. This contradiction is grounded in economic thinking which hinder progression, such as the neoclassical theory which suggests that social improvements constitute a constraint in the firm's pursuit of value maximization. The related concept of externalities further fosters the problem as it is adapted by both companies and governments. Externalities refers to the social costs entailing from a company's operations that the company does not have to bear itself (Porter & Kramer, 2011). Governments often believe that society has to compromise the externalities by imposing taxes and regulations while the firms perceive the externalities to be beyond their interests. As such, social problems have been given to the governments and NGOs to solve (Porter & Kramer, 2011).

In contrast to the classic economic theories, Porter and Kramer's (2011) concept of Creating Shared Value (CSV) is placing societal issues at the centre of competitive advantage. The authors acknowledge that the market is defined by both social and economic needs. The concept also recognizes both that firms may be exposed to internal costs stemming from social weaknesses, and that addressing such weaknesses may not impose additional costs as it allows innovative ideas to prosper. Thereof, shared value is about increasing and expanding the value creation rather than sharing the current amount of value among various actors. Porter and Kramer (2011) suggest that investments in communities may not only benefit the community, but also the firm's competitiveness and ability to create value in the long run.

Porter and Kramer (2011) builds the notion of shared value on the existing interdependence between the firm and its communities. The company is dependent on the communities to build demand for its products as well as providing the operations with critical resources and a supportive environment. On the contrary, the community needs prosperous firms to create jobs and welfare for the citizens. In the narrow view of traditional capitalism, this interdependence

has been neglected as the firm's contribution to society is perceived to be the profit generated by the operations. Conducting business as usual has therefore been viewed as sufficient though the profit supports employment, investment, taxes and so forth. In their quest of optimal value chains to maximize profits, Porter and Kramer (2011) argue that companies have failed to grasp the important obstacles that social weaknesses may prove to the value chain. The writers further distinguish three different ways that a company can create societal value to bolster its economic value creation.

Firstly, the company can strive towards reconceiving products and markets (Porter & Kramer, 2011). The society's needs are huge and spacious, such as health, better housing and less environmental damage. Instead of manufacturing customer demand for a product, the company has to focus on whether or not the product is good for the customer, thus, what the customer really wants and needs. Such a change of focus does not only create shared value but also opens up new avenues of innovation according to Porter and Kramer (2011). Effectively, the company has to identify all the societal needs, benefits and harms that can be embodied within the firm's product.

Secondly, the firm can redefine its value chain. Many externalities inflict economic costs on the firm as the company's value chain affects and is affected by social problems. A shared value approach towards social issues such as employee health, energy use and environmental impact has proven to improve the productivity of operations. For instance, many companies have realised the benefits that employees with a living wage, wellness and advancement opportunities provide on productivity (Porter & Kramer, 2011).

Lastly, the company can enable local cluster development (Porter & Kramer, 2011). Every company's success is dependent upon its supporting organization and surrounding infrastructure. Geographically clustered companies with related businesses and similar logistical infrastructure of local suppliers is vital to foster productivity, innovation and competitiveness. Without a supporting cluster, including both other businesses, institutions and the community, the firm's productivity will suffer and internal costs from social weaknesses will arise. Porter and Kramer (2011) argue that investing in the conditions of the cluster will spill over to other participants and the local economy. By identifying those cluster gaps where the company is most appropriate to contribute, the cluster will prosper to help the firm improve its operations and value creation. Porter and Kramer (2011) also advocated that the three avenues of shared value creation will mutually reinforce each other as both the firm and the society evolve over time.

### 3.3 Stakeholder Theory

Shareholders are not the only stakeholder that the firm needs to handle and create wealth for (Clarkman, 1995). According to Clarkman (1995), focusing solely on satisfying shareholders at the expense of other stakeholders may prove self-destructing in the long-term. To be successful, firms must pursue the purpose of distributing value and wealth to all of its primary stakeholders, without favouring one over another. That is, the firm has to secure the continuous participation of those stakeholders necessary for the firm's going concern and survival (Clarkman, 1995).

Mitchell, Agle and Wood (1997) has created a comprehensive framework for identifying stakeholders and their salience, building on three attributes of power, legitimacy and urgency. A stakeholder's power refers to its ability to get the firm to do something it otherwise would not do. As such, the stakeholder with power is able to force the company into unwanted actions. Legitimacy arises from the social system of the firm, such as norms, values, and beliefs. Thus, a stakeholder with legitimacy has a legitimate and rightful claim on the organization. Power and legitimacy are closely related to each other as they create authority in combination, however, they must be held separate as a stakeholder may have a legitimate claim but without power, it will not be able to enforce it (Mitchell, Agle & Wood, 1997). Finally, the urgency relates to the stakeholder claims' need for immediate attention, which is built on two conditions. The first condition is time-sensitivity, that is, the stakeholder perceives delaying attention as unacceptable. The second condition is criticality and refers to the stakeholder's perception of the claim or relationship with the firm as important (Mitchell, Agle & Wood, 1997). In this paper, distinguishing between the two conditions will not be taken into consideration, rather it settles for the overall definition of the degree of immediate attention required.

Based on the three attributes, Mitchell, Agle and Wood (1997) develops a framework of seven different stakeholder categories, as illustrated by figure 1 in appendix C. The categories are divided into three different classes, depending on the number of attributes possessed by the stakeholder. The latent stakeholders are the least salient stakeholders as they only hold one of the three attributes but lack the other two (corresponding to stakeholder 1-3 in figure 1). For instance, a dormant stakeholder has power but neither urgency nor legitimacy (Mitchell, Agle & Wood, 1997). The second class are the expectant stakeholders, which includes those stakeholders holding two attributes while missing the third one (corresponding to stakeholder 4-6 in figure 1). Such a stakeholder is for instance the dependent stakeholder who have urgency and legitimacy in its claim but no power to impose it (Mitchell, Agle & Wood, 1997). Lastly, when the stakeholder possesses all of the attributes, it reaches the class of definitive stakeholders (corresponding to stakeholder 7 in figure 1). Such a stakeholder does not only have a legitimate and urgent claim, but also the power to impose it on the firm. Mitchell, Agle & Wood (1997) suggest that stakeholders will have a more salient role the more attributes it holds, thus, will be given more attention by the firm.

The assumption of Mitchell, Agle and Wood (1997) aligns with that of Clarkman (1995), who suggest that the primary stakeholders must be given equal attention to assure the firm's going concern. That is, Clarkman's (1995) primary stakeholders are likely to possess all attributes of power, urgency and legitimacy. Building on Mitchell, Agle and Wood's (1997) framework to determine which stakeholders have pressured BoKlok to invest in ethics, our assumption follows that of the authors. Effectively, we assume that definitive stakeholders will play a vital role in BoKlok's decision to invest in ethics. Cassimon, Engelen and Liedekerke (2016) also recognize this conclusion, as they showcase how the decision of IHC Caland to leave Burma is driven by the firm's major stakeholders. Furthermore, power is suggested to be the one most influential attribute though it is the stakeholder's power that will be utilized to put pressure on the firm. Mitchell, Agle and Wood (1997) also recognize that dominant stakeholders, holding power and legitimacy, are most likely to turn into a definitive stakeholder.

Over the last couple of decades, many researchers have tried to establish the companies' most salient stakeholders. Clarkman (1995) divides stakeholders between primary and secondary, where the primary stakeholders are deemed to be vital for the firm's going concern. Primary stakeholders typically include shareholders and investors, employees, customers, suppliers and the public group of governments and communities. Building on Clarkman's (1995) perception of primary and secondary stakeholders, Hillman and Keim (2001) conclude that organizational advantages and shareholder value derive from developing relationships with customers, suppliers, employees and communities. In the wake of increasingly globalized companies and the growing importance of NGOs and the internet, Hart and Sharma (2004) takes a somewhat broader perspective to identify the main stakeholders as they distinguish between core and fringe stakeholders. The core stakeholders are those stakeholders that have an acknowledged claim fostered by power, legitimacy and urgency. In addition to the stakeholders identified by Clarkman (1995), Hart and Sharma (2004) also recognize NGOs and competitors as important. Lastly, Cassimon, Engelen and Liedekerke (2016) assumes that the major stakeholders will consist of shareholders and other investors, clients, employees and governments.

Based on the prior research, we propose that the most salient stakeholders are shareholders and investors, employees and customers as they are mentioned by all authors. Suppliers, communities and governments are also likely to be salient as they are acknowledged more than once. As such, we assume that these stakeholders have pressured BoKlok to invest in ethics and the screening tool as they possess power, legitimacy and urgency in their claim. NGOs and competitors, recognized merely by Hart and Sharma (2004), is suggested to not be among the stakeholders that has driven BoKlok to invest in ethics.

### 3.4 Artificial Intelligence in Organizations

Humans develop human intelligence as they learn new skills and adapt to their environment over time (Huang & Rust, 2018). In their attempt of developing machine intelligence, the AI literature tries to mimic human intelligence such as knowledge, reasoning and problem-solving. According to Huang and Rust (2018), four different categories of intelligences can be distinguished from each other, namely mechanical, analytical, intuitive and empathetic. As illustrated by the figure 2 in appendix D, the four categories represent different levels of intelligence, whereas mechanical is the lowest level and empathetic includes the highest intelligence level. Figure 2 also highlights that the more advanced intellects are harder to mimic and, thus, takes longer time for the AI to achieve. In addition, Huang & Rust (2018) assumes that once a level of intelligence is achieved by the AI, all lower AI intelligences coexist to provide service. The four levels will be presented in the following.

The mechanical intelligence includes the AI robot's ability to conduct routinely and repeated tasks automatically (Huang & Rust, 2018). The mechanical AI are programmed to have low adaptive and learning abilities to maintain consistency when performing the repetitive tasks. Further characteristics of a mechanical AI is the robot's inability to understand its environment and the content of the data it processes. As such, similar to a Google search, intelligent algorithms can effectively assist in sorting out the most relevant data, however, it is unable to understand it



(Del Prado, 2015). The second stage, analytical intelligence, concerns the AI's capability to process information for problem-solving and learning (Sternberg, 1984). Building upon logical reasoning, mathematical skills and cognitive thinking, the analytical AI are able to find insightful information without being programmed where to look for the data (Huang & Rust, 2018). Such analytical intelligence is necessary when the tasks are complex but yet systematic, consistent and predictable. Thus, emerging applications of machine learning and data analytics provide formidable decision-making support, but human involvement is still required to make the decision (Huang & Rust, 2018).

When the AI evolves from the analytical intelligence to the intuitive intelligence, it obtains the ability to think creatively and adjust itself to different situations (Huang & Rust, 2018). Thus, intuitive intelligence includes hard-thinking and professional skills that require experience-based insights and creative problem-solving. According to Huang and Rust (2018), the intuitive AI are designed for tasks that are complex, creative, chaotic, holistic and experience-based in nature. In a sense, the AI is able to function like a human as it imitates human cognition but with an extremely fast learning ability. Del Prado (2015) argues that an intuitive AI may even be able answers questions based on the information it has processed. In the intuitive stage, the only thing separating humans and machines are emotions as the machine in this stage does not possess this type of skills (Huang & Rust, 2018).

The empathetic intelligence refers to the capability of recognizing and understanding fellow humans and responding appropriately with emotions (Goleman, 1996). As such, empathetic skills include interpersonal, social and other people skills that allow the human to be sensitive to others' feelings (Huang & Rust, 2018). More specifically, communication, relationship building, leadership and negotiation is typical empathetic intelligences. An empathetic AI, thus, is a robot that can feel things or at least behaves like it has feelings and are most proper when interacting with customers where appropriate emotions are expected to be shown. However, according to Huang and Rust (2018), there has been a debate between psychology and AI literature whether a robot can have feelings, as emotions are argued to be subjective and cannot be programmed. Effectively, the focus of empathetic intelligence of AI has been orbiting around the robot's ability to experience and simulate emotions (Huang & Rust, 2018).

Built on the four levels of intelligence, Huang and Rust (2018) concludes how the AI will establish itself within the organization, as employees' tasks rather than entire jobs will be substituted. This conclusion is shared by Davenport and Kirby (2015) as well as Lacity and Willcocks (2016a). Furthermore, tasks that require lower levels of intelligence will be subject to automation first as they are easier to copy (Davenport & Kirby, 2015; Huang & Rust, 2018). As such, mechanical tasks are first to be automated by robots, followed by analytical and intuitive tasks while the empathetic tasks will take the longest for AI to replace. Currently, Huang and Rust (2018) argue that mechanical AI is common while analytical AI is emerging, although intuitive and empathetic AI are still rare in today's business society. Effectively, employees will see their more repetitive and standardized tasks being replaced primarily, forcing them to adapt, integrate and collaborate with the robots (Davenport & Kirby, 2015; Davenport & Kirby, 2016; Huang & Rust, 2018). Employees therefore need to excel in higher levels of intelligence in their

jobs, where the robots are yet to reach enough capacity to overtake the job (Davenport & Kirby, 2015; Huang & Rust, 2018), thus, the employee and the AI will support each other.

As Huang and Rust (2018) point out that mechanical and analytical AI are predominant today, we assume that the screening tool is likely to meet the characteristics of either of these types of AI. Furthermore, we assume that BoKlok's employees, whose jobs are affected by the screening tool, will be forced to focus more on high-level intelligence tasks as the screening tool will take over low-level tasks. Our assumption therefore aligns with the conclusion made by Davenport and Kirby (2015) and Huang and Rust (2018).

### 3.5 The Benefits of Artificial Intelligence

Artificial Intelligence are generally associated with a lot of benefits, often related to decreased costs, increased efficiency, increased quality and flexibility (Davenport & Kirby, 2016; Lacity & Willcocks, 2016a; Lacity & Willcocks, 2016b; Tschakert et al., 2016; Ilcus, 2018; Kokina & Blanchette, 2019). In their empirical research of 16 different case companies, Lacity and Willcocks (2016a) found that AI implementation entailed cost savings, higher efficiency and workforce flexibility, increased process quality as well as better regulatory compliance. Probably most strikingly is the case of Telefónica O2, where the mentioned benefits accumulated to a return on investment of 650 - 800% over a three-year period (Lacity & Willcocks, 2016b). In addition, Lacity and Willcocks (2016a) found that AI generated better customer experiences and employee satisfaction, as the employee could focus on higher value creating tasks.

Kokina and Blanchette (2019) noticed results similar to those of Lacity and Willcocks (2016a) in their study of companies that have implemented robots to automate accounting tasks. Kokina and Blanchette (2019) conclude that automated accounting tasks presented the company with increased efficiency, stemming from saved labour hours and reduction of temporary staff, as well as effectiveness when employees are allowed to focus on high-value tasks. Moreover, positive ROI were accompanied with improved process quality as a drastic error reduction was noticed. Effects of increased profit margins, higher quality audit evidence and processes from analytical AI have also been identified in the auditing profession, according to Tschakert et al. (2016). In her literature view, Ilcus (2018) found that AI is associated with several benefits, including cost saving, business process efficiency, quality and consistency, fast response time and improved customer satisfaction. Davenport and Kirby (2016) also highlights faster and more accurate processes as potential benefits to stem from AI implementation.

Many of the above-mentioned benefits occur already at the mechanical level according to Huang and Rust (2018), as mechanical AI has the advantage of quality consistency, higher efficiency and lower cost in comparison to humans. These benefits are further fostered as the AI advances into higher levels of intelligence. In addition to the mechanical-level benefits, Huang and Rust (2018) sees other advantages to be achieved within the higher levels respectively. Analytical AI presents the user with decision-making support as the AI are able to track customer behaviour and process huge amounts of data. Effectively, employees will be allowed to focus on more sophisticated work as the AI will present the necessary data to the employee. Intuitive AI allows

the company to have faster and more accurate decision-making processes to assure that decisions are taken in the right time, e.g. the AI sense when to contact the customer depending on its geographical position. As such, intuitive AI are necessary to make full use of the faster and more accurate data processing of analytical AI.

As most of the benefits occur already at the mechanical level, we assume that the benefits of the screening tool align with those presented by the AI literature. That is, cost advantage, increased efficiency (also including faster processes and response time) and quality, higher flexibility and regulatory compliance are suggested to be derived from the list. However, if the screening tool is only to meet the characteristics of a mechanical AI, we are open to the fact that some of the benefits may be restricted by the robot's incapability as more advanced AI are required to fully grasp the benefits.

### 3.6 Control Mechanisms

In a complex and uncertain business environment, manufacturing firms are forced to manage their supply chain to assure the firm's performance (Thun & Hoenig, 2011). Supply chains have also been exposed to increased vulnerability lately, due to streamlined supply chains, increased outsourcing and globalization. Tse, Zhang, Tan, Pawar and Fernandes (2019) also argue that appropriate mechanisms can reduce the opportunistic behaviour and goal incongruence within the supply chain. As such, supply chain risk management becomes a central issue to mitigate the negative impact stemming from external disturbance and everyday problems (Thun & Hoenig, 2011). Lewis (2003) distinguishes between three control mechanisms used to handle risks, namely preventive/ex ante mechanisms, in-process mechanisms and recovery/ex post mechanisms. Preventive control mechanisms are cause-related and have the purpose of decreasing the probability of a negative risk's occurrence (Thun & Hoenig, 2011). That is, preventive controls are linked to the quality management notions of error-proofing and doing things right the first time (Lewis, 2003). Typical mechanisms that fall under the preventive controls are focusing on secure markets or storing products in safe areas, but also initiatives to increase the transparency in the supply chain (Thun & Hoenig, 2011).

Furthermore, the in-process mechanism comes into play in an event where the preventive control is unable to stop the risk from occurring and is used to detect and isolate a risk rather than preventing it (Lewis, 2003). Lewis' (2003) in-process controls align with Thun and Hoenig's (2011) reactive controls. Instead of acting upon the risk, in-process controls mitigate the risk's negative consequences and the firm's operating exposure to absorb the damage caused (Lewis, 2003; Thun & Hoenig, 2011). The most common in-process mechanism is the approach of dual sourcing, thus, using more than one supplier for the same component if one were to fail (Thun & Hoenig, 2011). Lastly, Lewis (2003) stresses that a thorough operational risk management also must contain recovery mechanisms to address failures and negative consequences. Effective recovery controls, including for instance product recalls and refunding money, allows the firm to respond to criticism and regain lost market share (Lewis, 2003).

For risk management to be effective, it must rely upon a comprehensive assessment of the different control mechanisms (Lewis, 2003; Thun & Hoenig, 2011). According to Lewis (2003), neither preventive nor in-process controls alone will be sufficient enough to tackle the firm's risks. All the firm's possible risks cannot be predicted upfront, while the speed of proliferation between the event and the negative consequence cause the time for mitigation to be very short. Lewis (2003) also found that relying too heavy upon preventive and in-process controls may result in less effective recovery processes. Tse et al. (2019) further concludes that preventive controls are more appropriate for upstream supply chain activities while recovery controls are better in downstream activities in the supply chain.

Lewis (2003) and Thun & Hoenig (2011) uses different theoretical terminology and frameworks to conceptualize the different control mechanisms. Since Lewis (2003) presents a third dimension of control with the recovery controls, this terminology will be used throughout the paper.

## 4. Empirical Material

### 4.1 Introducing BoKlok - Skanska and IKEA Together

BoKlok was established in the mid 1990s when the founder of IKEA, Ingvar Kamprad, and Skanska's of that time CEO, Melker Schörling, decided to build and offer quality homes to ordinary people with regular incomes (BoKlok, 2019). Effectively, three women, consisting of a Skanska developer, an IKEA designer and an architect, were destined to find out how much a typical person could afford to pay for its housing and then design a product to meet the financial framework (BoKlok, 2019). As such, the company's vision is to create "*Sustainable, quality homes at a low price, for all*" (BoKlok, 2019, p. 6). To accomplish the firm's vision, BoKlok deploys an industrial process to achieve the highest level of prefabrication to minimize cost, errors and time (BoKlok, 2020) In addition, BoKlok runs the entire value chain from product development, project development, factory production, construction, sales activities as well as customer relations after moving in (BoKlok, 2020). Since the first finished project in 1997, BoKlok has expanded to operate on the housing market in Sweden, Finland and Norway as the company is currently launching the concept in the United Kingdom as well, with the first United Kingdom project to be finished in 2021 (BoKlok, 2020). However, the Swedish market constitutes the majority of BoKlok's operations with approximately 900 homes being developed on an annual basis (BoKlok, 2020).

The CEO Spangenberg described that BoKlok is set up as a franchise arrangement. BoKlok AB, established in the early 2000s and a co-owned subsidiary of the founding companies Skanska and IKEA, owns the concept and the brand of BoKlok. Spangenberg further explains that BoKlok AB has an article of association and a shareholder agreement which strictly regulates how BoKlok is supposed to do business. With the franchise arrangement, Skanska's and IKEA's initial plan was to let different franchisees conduct business with the concept and build nice residences at a low price. IKEA even had ambitious plans to have BoKlok franchisees in many different countries.

However, since the initial idea was incubated in the mid-1990s, there have mainly been one franchisee to the BoKlok concept according to Spangenberg, which is Skanska, with a few failed attempts with other actors along the way. In 2010, Skanska decided to reorganize their BoKlok engagement to assemble the franchise agreements in each country into one organization, namely BoKlok Housing AB, as the Skanska franchise had previously been too fragmented. As BoKlok Housing AB is a wholly owned subsidiary to Skanska, the BoKlok concept is operationally run under Skanska's flag (BoKlok, 2020). As such, it is necessary to distinguish between the concept and the operational part of today's BoKlok, whereas the concept BoKlok AB is co-owned by Skanska and IKEA while the operations in BoKlok Housing are entirely owned by Skanska. Although, as described by Spangenberg (interview, 8th of April 2020), BoKlok's ethical work is influenced by both of its parents;

*“When we sit and think about different tools for our business, and we talk about values, we talk ethics and so forth, we do so to a large extent legally through the Skanska structure, but we also have as much IKEA to relate to as one of our franchise owners.”* (The authors’ own translation).

## 4.2 Why BoKlok Invest in Ethics

### 4.2.1 The Code of Conduct

As described by CFO Lars Gath and business development manager Bengt Fardeluis, the foundation to all of BoKlok’s investments in ethics, such as the screening tool, is the Code of Conduct applied by the company. This view is shared by Spangenberg who described how the scale of what is ethically correct and what is not is gradually changing over time. As such, Spangenberg continued to explain how Skanska established Vårt sätt att vara (English: Our way of being) as an ethical business system similar to a Code of Conduct in the early 2000s, which has developed ever since. According to Gath, the Code of Conduct is a way of acting and following the firm’s values and national legislation, whereas investments in ethics constitute concrete tools to assure compliance to the code. As a part of Skanska’s operations, BoKlok applies Skanska’s Code of Conduct and values into their organization (BoKlok, 2020).

In line with Gath’s explanation, the Code of Conduct itself stipulates to constitute a guidance to help companies within the Skanska Group to integrate the Group’s values into their respective everyday business life with various stakeholders (Skanska, 2020c). Effectively, the Code of Conduct is built upon the Skanska Group’s four core values, namely Care for Life, Act Ethically & Transparent, Be Better Together and Commit to Customer (Skanska, 2020c). Care for Life refers to the BoKlok’s commitment to safety for both humans and environment, meaning that the company works safely or not at all (Skanska, 2020c). Acting Ethically & Transparent is related to how BoKlok is doing business, as it states; *“We do business with a high degree of integrity and transparency. We live by our Code of Conduct and never accept shortcuts. We foster a working climate where everyone can speak their mind.”* (Skanska, 2020c, p. 9). Furthermore, Be Better Together is about the firm’s ambition to develop and learn together with customers, partners and communities and promote inclusion and diversity to reach the best possible solution. Lastly, Commit to Customers means that BoKlok wants to turn customers' visions into reality by understanding and satisfying their needs (Skanska, 2020c). Although all core values more or less touch upon ethical behaviour, Acting Ethically & Transparent must be said to constitute the main value that drives BoKlok towards integrating ethics into their operations.

To meet the core values’ requirements, especially those of high integrity and transparency, the code includes an array of ethical commitments made by the group, spanning from the project sites level to the construction market and the entire society (Skanska, 2020c). On the workplaces, BoKlok works to uphold fair working conditions, diversity and personal data protection as well as encouraging healthy and safe work conditions. Furthermore, BoKlok actively strives to counteract bribery, corruption, fraud and money laundering both in society and in the construction industry (Skanska, 2020c). In addition, fair competition is promoted by the organization to drive innovation and efficiency in society (Skanska, 2020c). To meet the code's various commitments,

Human Resource Manager Jonas Ande says that BoKlok does many different things within ethics to assure that workplaces associated with the company fulfil the obligations. Gath further highlights education and assessments of suppliers, partners and clients among the actions taken by the firm.

Ande continues to describe that BoKlok also has to assure that suppliers and other partners follow and understand the firm's core values. As he describes, each company working at a BoKlok workplace is legally responsible for their own business. However, the firm's stakeholders will have a different interpretation as they will decouple a BoKlok project site's supply chains to the company, thus making BoKlok's brand frivolous if any of the suppliers act inappropriately, according to Ande. To achieve compliance from suppliers, District Manager Magnus Persson explains how the Code of Conduct has been complemented with a Supplier Code of Conduct, which the supplier has to take part of. also explains that the supplier has to commit to the Supplier Code of Conduct to be hired. The Supplier Code of Conduct includes those parts of the original Code of Conduct that are relevant for the suppliers (Skanska, 2020e).

#### 4.2.2 From Fancy Words to Everyday Language.

Stemming from the firm's Code of Conduct, ethical behaviour is so established in the organization that they do not even talk about it anymore. Spangenberg accentuates this when he states that ethics is a fancy and quite abstract word, as he prefers to translate it into a more graspable everyday language. Using everyday language when communicating is also well established throughout the entire organization. This became apparent during our visit at the BoKlok office in Malmö, where we came to notice how the walls were draped with messages that emblemized what the company stands for. One of these messages, depicted by picture 1 in appendix E, states that; *"We communicate personal, simple and easy to understand. No fancy words and complicated formulations, and preferably with a twinkle in the eye."* (the authors' own translation).

As such, Spangenberg preferred to say the terms *schysst* (English: fair) and *att vara schysst* (English: being fair) rather than using the term ethical. Being fair also seems to be a well-established expression for being ethical in BoKlok which informs the company. In addition to Spangenberg, many respondents naturally referred to the word fair when they were to describe why and how BoKlok conducts an ethical business. For instance, both Lehrecke and Persson stressed that BoKlok has to assure that they do business with people that have earned their money in a fair way. Furthermore, the everyday term fair is so normal to describe the firm's business that it has become part of BoKlok's office building in Malmö. Among the messages that draped the walls at the office, we noticed two messages that stated *"Schysst arbetsmiljö"* (English: fair work environment), as illustrated by picture 2 and 3 in appendix E. Effectively, BoKlok have turned ethics into an everyday business language, making it a natural part of their everyday actions to be fair and be a fair citizen.

### 4.2.3 Protecting and Building the Brand Value

A common theme among many of the respondents was that BoKlok sees investments in ethics as a way of protecting the firm's brand value. For instance, Fardelius looked to Skanska's history and previous ethical breaches, such as the asphalt cartel in Sweden, and stressed the severe brand damage the company experienced when it was discovered. Purchasing Manager Johan Borg explained that the main reason for BoKlok to work with ethics is to avoid bad publicity that may harm the company. Project Leader Sofi Ericsson and Ande came to the same conclusion as they pointed out that ethical violations to the brand reputation is far worse than making a loss on a project. Spangenberg also added that strong brands tend to break through in the long run, especially in today's society where it is becoming easier for everyone to have an opinion. This view is also confirmed by several different organizational documents, which specifies potential damage towards the firm's brand and reputation as one of the main reasons as of why they work with ethics (Skanska, 2019b; Skanska, 2020d).

However, being ethical and having a strong ethical compass does not only have the goal of protecting the brand from risks, but also to build and foster the brand to gain competitive advantages. During our visitation at BoKlok's office in Malmö, we ran into a handbook developed by the company, called Varumärkeshandbok (English: brand handbook). The handbook stresses the importance for the organization to act unanimously to assure that everyone perceives the brand in a way that matches the company's behaviour and belief (BoKlok, 2017). Referring to ethics, many respondents describe how an ethical brand gives the company competitive advantages.

Project Leader Johan Hansson describes how high ethical standards signals that BoKlok operate with high quality. Furthermore, Persson argues that people want to do business with companies that have the right ethical values. Spangenberg shared Persson's view, as he expressed that serious firms want to do business with other serious firms. Persson's argument is further supported by Ande, who, in line with the rest of Skanska and BoKlok, believe that ethical companies will be winners in the long run. Thereof, Skanska have driven campaigns called "Ställ högre krav" (English: Make higher demands) for many years, Ande describes, backing both private and public customers to increase their ethical demands when purchasing construction projects. In line with the respondents, the Code of Conduct emphasizes that engaged colleagues who share the company's values will generate a stronger brand and reputation among stakeholder (Skanska, 2020c).

Some respondents, such as Eriksson, Hansson, and Borg, discussed that ethical investments come with additional costs for the firm, which may result in the loss of some deals. Although, they all argued that the benefits of the investments clearly outweighed the costs. Spangenberg even suggested that there were no additional costs related to being ethical as it rather becomes cheaper through increased efficiency when things are done right the first time.



#### 4.2.4 The Brand Value Towards Who?

When asked about the brand value towards who, Spangenberg stressed the importance for the firm to have a holistic view that looks many different directions as the brand value adds up to the sum of all stakeholders' perception about the brand. As of that, Spangenberg labelled all stakeholder equally important, as he described how the firm sits in the middle while all stakeholders, such as clients, media and authorities, put pressure on the firm from different ways. With an increased information flow from social media and so forth, both Spangenberg and Persson think it is easier for people to both have an opinion about something and actually get the opinion to be heard. As such, it is not possible to control the firm anymore, making correct behaviour and conducting a serious business is the only way of gaining control. As Spangenberg explains it;

*“It does not matter where in the value chain or work chain you are. You do not even need to be a part of it, you can be totally from the outside. Today, it can very well be like someone just drives by a construction site and interferes with our fence and then writes a long Facebook or Instagram thread and then it sabotages our brand.”* (Spangenberg, interview, 8th of April 2020, the authors' own translation).

Simultaneously as people's possibility to express their opinion have increased, Persson agrees with Spangenberg's perception that the ethical landscape has been changing over the last decades. Gath and District Manager Thomas Lehrecke have also felt that the focus and demand on ethics have increased over the last couple of decades. Effectively, the ethical demands from various stakeholders have increased, as the perception of what is ethically right and wrong is constantly changing, forcing the company to raise their bar to meet the new demands.

As he talked about having a holistic view, Spangenberg mentioned an array of stakeholders that influence BoKlok in their decisions to invest in ethics. However, the brand value towards two stakeholders were much more commonly referred to than others among the respondents, namely employees and customers. One of the main stakeholders brought forward by Spangenberg is employees as the employees have to be proud of working for BoKlok, otherwise they do not want to work for the company. Ande (interview, 8th of April 2020), as a HR manager, adds to the argument by saying that a strong ethical profile and *“have a purpose of doing something more than just making money”* (the authors' own translation) is central to remain an attractive employer for both current and future employees. As described by Eriksson and Persson, the right ethical compass will enable BoKlok to attract talented employees that share the company's values. In fact, many of the interviewees also expressed how BoKlok's ethical work and values align with their personal values as one of the main reasons as of why they appreciate working at the company. As an example, Lehrecke (interview, 8th of April 2020) explained that;

*“I have worked in companies where they completely ignore this (ethics). But that is how you are as a human. [...] For me at least, it was not a pleasant place to be because it did not match my values. [...] But for me it is important to work for a company where this is connected.”* (The authors' own translation).

Similarly, Eriksson (interview, 3rd of April 2020) expressed;

*I am really proud to work when we have such a clear Code of Conduct and strong ethical foundation and everything. I think it feels good, I am really proud of the safety work and Code of Conduct we have, I really am.*” (The authors’ own translation).

In addition to the employees, another brand value stressed by several respondents is that towards customers. Borg stresses his belief that Skanska, in the context of bidding on huge contracts, are able to land these types of contracts as they score high on ethical commitments and other sustainable parameters. As such, with an ethical approach, Skanska and BoKlok are able to outcompete its competitors for customers. Moreover, Gath and Persson highlighted that BoKlok needs to be a trustworthy company in the eyes of the customer, as the customers want to buy their new housing from a serious actor. If BoKlok are not able to deliver on their ethical perspectives, they will lose trust from potential customers. In this context, Spangenberg stressed that investments in ethics become even more inherent. Once you have established a brand that promises high ethical and sustainable values, the drop and damage inflicted is much greater if you fail living up to your initial promise than if you do not have such a commitment. Effectively, it becomes a self-reinforcing spiral where investments in ethics increase the brand's ethical value, which in turn foster further investments in ethics to meet the customers’ expectation and avoid pitfalls.

Ande divides the customer into private and governmental clients, whereas the private clients rather than the public ones are those that drive the demands on ethical behaviour. Ande explains this with the fact the private clients, such as private corporations or individuals, have a brand of their own to safeguard but also possess the competence to put higher demands. Similar to the BoKlok project sites, where BoKlok do not want to be associated with a poor supplier, the private customers do not want to be related to an unethical construction entrepreneur. On the contrary, state-owned companies often hide behind “lagen om offentlig upphandling” (English: The Public Procurement Act) which stipulates that they have to make their procurement based on price. As such, ethical parameters are not valued by the state-owned companies, as Ande concluded that less serious companies can be hired as they provide a lower price. However, Borg describes that municipalities and public authorities are becoming more and more aware of such things like ethical behaviour and so forth. In addition, the state-owned companies have another base for upholding a certain standard regarding ethics as customers. As stressed by Ande and Gath, BoKlok or Skanska can be completely prohibited from placing bids on official contracts if they breach ethical standards and sanctions, thus, getting listed on a blacklist. For BoKlok, the main body of customers consists of private customers, as the residences are normally sold directly to individuals while a few projects are sold to private and state-owned companies respectively (BoKlok, 2020).

#### 4.2.5 BoKlok Puts Pressure on their Suppliers

With the construction industry’s complex and extensive supply chains, suppliers constitute an important cornerstone for successful operations (Skanska, 2020a; Skanska, 2020e). Borg further

also explained how BoKlok, at least in comparison to Skanska, is more heavily relying upon few central suppliers. With two standardized concepts, namely the single family homes 3D and the multi-family homes FLEX (BoKlok, 2020), Borg describes that the company today utilize five contracted suppliers (of which BoKlok Byggsystem constitute a subsidiary to BoKlok Housing) to provide the modules that are assembled into residences on the project sites. These five suppliers are labelled as strategic suppliers, as they are directly critical for the success of the BoKlok projects. However, on the project sites, BoKlok utilizes more local and project specific suppliers.

Although stressed as an important stakeholder in the Code of Conduct (Skanska, 2020c), BoKlok's suppliers are yet to put ethical demands on the company, showcased as very few respondents mentioned the role of suppliers. As the only one emphasizing suppliers as important to why BoKlok invests in ethics, Persson expressed that an ethical approach signals an important message that BoKlok is a serious partner. On the contrary, Spangenberg said that he has not experienced that suppliers are driving ethical demands towards the firm. Rather, BoKlok is the driving force of ethics in the relationship between the company and its suppliers. Borg describes how he and his colleagues at the purchase department continuously visit the strategic suppliers on a quarterly basis to assure that they follow BoKlok's ethical framework. Eriksson and Hansson, who both have continuous contact with various project specific suppliers in their roles as Project Leaders, further declared that some suppliers consider BoKlok's demands on ethical standards to be too extensive. In such situations, BoKlok is not willing to collaborate with the supplier. For instance, Eriksson (interview, 3rd of April 2020) explained:

*"I know there are [...] firms we cannot collaborate with. It is so many things, it is glasses, gloves and so forth. You know, they think it is too hard but then it is "no thanks" either way."* (the authors' own translation).

To more explicitly describe how suppliers are put under pressure to apply ethical manners. Borg says that the suppliers have to be approved by BoKlok before the supplier can be utilized at any of BoKlok's project sites. To be approved, Borg mentions that the supplier needs to either have a framework agreement with BoKlok or be registered in the "leverantörsurval" (English: supplier database). Either way, Borg stresses that the supplier has to share extensive information about the organization, whereof a lot of the information is about ethics and safety. For instance, the supplier has to fulfil basic requirements such as paying its taxes, comply with the ethical standards of the Code of Conduct as well as submitting quality policies and other documents. All the information is controlled by the purchasing department of Skanska before any approval is given. Borg even exemplified how high the approval demands are as he was barely able to get approval for BoKlok's own subsidiary BoKlok Byggsystem AB (owning BoKlok's factory in Gullringen, Sweden). As such, the supplier has to be on the same ethical level as BoKlok if they want to establish a partnership.

#### 4.2.6 No Money, No Business

As previously mentioned, Spangenberg explained that BoKlok AB is co-owned by Skanska and IKEA while BoKlok Housing AB is owned by Skanska. In this setting, he emphasizes that

BoKlok has to relate to either of its two parent companies when managing their business. In addition, BoKlok has a stakeholder agreement stipulating how the firm is supposed to conduct business, which the company also has to relate to. As such, this also goes for ethics. If Skanska or IKEA put pressure on the company to work with different ethical initiatives, the organization has nothing but to comply. As the operational owner, most of the respondents perceived Skanska to be the vanguard of the construction industry when it comes to working with ethics. The perception is supported by the firm's inclusion as a Sustainability All Star on Fortune 500's Change the World list in 2019, being the only construction company awarded with a place on the list (Fortune, n.d.), along with other rewards in recent years (Skanska, 2017; Persson, 2018). Furthermore, Borg tries to be cynical as he concludes what investments in ethics is all about, both at BoKlok and Skanska level. In the end, the goal of the investments is to avoid bad publicity that may affect the value of the firm and the stock price negatively according to Borg. The Code of Conduct also declare shareholders to be one of the Group's main stakeholder (Skanska, 2020c).

When talking specifically about the screening tool and sanctions, Ande stressed that the screening tool is something that has been brought to the company by banks and creditors to be able to borrow money. Gath describes how banks and creditors utilize various covenants, where BoKlok are required to assure that they do not breach certain regulations demanded by the creditor. Most often, these covenants stipulate that BoKlok has to secure to whom the borrowed money is later distributed, so that the money is not disbursed to a counterpart that has been involved in money laundering or other illegal actions. As described by both Fardelius and Gath, the construction industry, and more specifically the purchase of land and real estate, have been commonly characterized by money laundering transactions. In the case of breaching such a covenant, Gath explains that the creditor is able to immediately withdraw their funding from the company and the housing projects. Gath (interview, 16th of April 2020) also describes how such an event may spread like a wildfire; *“And it spreads, the banking world is small, and it becomes incredibly difficult to refund yourself quickly. It can be very expensive.”* (the authors' own translation).

#### 4.2.7 Legislation, Sanctions and Business Partner?

The Code of Conduct says that BoKlok are devoted to follow legal frameworks and legislation within the countries they operate (Skanska, 2020c). However, legislation does only constitute a minimum requirement for the organization, as the code's framework shall be applied if it stretches beyond the demands made by governments and jurisdictions (Skanska, 2020c). These basic requirements were also confirmed by Gath. Spangenberg further highlights the importance of governments as he stresses that without the approval from the municipality towards the company, there will not be any housing projects. Persson concretized why Spangenberg perceives the municipality so important to the business, as the municipalities are involved throughout the building process of a construction project. Persson describes that municipalities can hold the role as seller of land but also as the purchaser of finished housing projects through public utility companies. Furthermore, the municipality has to accept detailed development plans and give building permit before the construction can start, as well as conducting continuous inspections and leaving a final clearance before completion of the construction (Persson, personal communication, 11th of May 2020). As such, BoKlok needs to have a close relationship and

relate to the municipalities they operate in. However, as mentioned above by Ande, the government agencies do not seem to be in the vanguard of demanding ethical standards, although they have started to be more open towards such things according to Borg (3rd of April 2020).

Connected to their legislations, governments have another important enforcing mechanism when it comes to enforcing organizations to invest in ethics, namely sanction. Ande depicts sanctions as economic warfare, where the aim is to restrict the supply of capital, thus, restricting the sanctioned organization's ability to conduct their business. Sanctions can be inflicted to the firm in two ways. Firstly, it can take the shape of a corporate fine as the company is obligated to pay a large fine to the government that has issued the sanction, as explained by Fardelius and Gath. Secondly, as mentioned above, it can be issued as an exclusion from the specific market, meaning that Skanska or BoKlok is prohibited to bid on official contracts according to Ande. The Skanska Group's Sanction Procedure recognizes the possibility of being subject to sanctions as a severe business risk, as may implicate financial losses and regulatory action (Skanska, 2020d), which was also confirmed by Fardelius and Ande.

The Sanction Procedure further mentions the United Nations, European Union and the United States as the most pivotal and relevant sanction regimes for the Skanska Group (Skanska, 2020d). However, the US stood out as the far most commonly referred to and important government among the respondents in this sense. Gath concluded that the US has an extensive legislation which makes it possible to issue sanctions outside the US borders. Fardelius also adds that the US constitutes one of Skanska's biggest markets, making exclusion from the US market particularly palpable.

#### 4.2.8 The Organization and its Communities.

Spangenberg explained how the construction industry has been depicted as characterized by shady business for a long time. The statement is supported by his own and Lehrecke's personal experiences as they both have worked at organizations where bribery and fraud were part of every-day life before joining Skanska. As such, Spangenberg emphasizes that there is an inherent pressure within BoKlok to liberate from the industry's reputation.

Ande and Spangenberg both argue that the society and the local communities where BoKlok operate as an important stakeholder, which very much aligns with the Code of Conduct (Skanska, 2020c). According to the code, BoKlok and Skanska sees themselves as a part of the society and their contribution to the communities stretches beyond the housing projects they execute for their customers (Skanska, 2020c). The Group further believes that their investments in local communities, such as committing time, resource competence and economic contributions, will help them to build a good reputation and long-lasting relationships with various stakeholders (Skanska, 2020c).

## 4.3 The Screening Tool

### 4.3.1 What is the Screening Tool?

Sanctions are implemented by either governments or international organs which put constraints on the possibilities of doing business with certain actors, including organizations, individuals or countries (Skanska, 2020d). Thus, sanctions are peaceful economic and political actions undertaken by states to impact the freedom of individuals or entities. Sanctions carry legal power and violations can result in penalties (Government Offices of Sweden, 2017). Skanska's screening tool is used to automatically monitor various global sanction lists, mainly those published by the UN, EU, and US (Skanska 2020d). The groups financiers, such as banks, are also enforcing compliance rules regarding these issues (Skanska, 2020d; Lars Gath, interview, April 16, 2020). As mentioned in 4.2.1, Gath explains that banks can impose covenants that give them the right to terminate all financing if Skanska or BoKlok were to be too careless and conduct business with a counterpart that, for example, is involved in money laundering.

Skanska recognizes that having relationships, direct or indirect, with counterparts subjected to sanctions put the organization at risk on legal, financial, and reputational levels (Skanska, 2020d). As a result, Skanska has developed a Group Sanctions Procedure to ensure that the firm and its subsidiaries comply with worldwide sanctions regulation (Skanska 2020d). At a bare minimum, a firm must not be registered on any sanction lists in order to become a supplier to the Skanska Group (Skanska, 2019a). A screening tool was therefore put to use in 2019 (Skanska, 2020a), to enable the organization to meet the requirements issued by the sanction lists, by preventing them from conducting business with unethical or law-breaking organizations according to Gath. The screening tool is a service the Skanska Group is purchasing from Dow Jones as explained by Ande. The interviewees also declare that the sanctions are mostly related to business that has connections to terrorism and money laundering. Spangenberg describes the screening tool as an IT, or AI, instrument which is embedded into the company's enterprise system. For illustrative purposes, the screening tool can be divided into two parts: the automatic searches and the manual searches.

The automatic searches are conducted through so-called *Computerized Systemized searches*, where suppliers, subcontractors and joint venture partners are screened. As described by Ande, the screening tool is connected to the firm's supplier database, where the suppliers have to be entered and approved as mentioned in chapter 4.2.5. Each individual business unit is responsible for connecting their data to the screening tool (Skanska, 2020d), and Borg explains the business units' responsibility to assure that suppliers register themselves in the database. The screening tool then scans the supplier database every twenty-four hours according to Gath and Ande. If there is a match related to any of BoKlok's suppliers, Jonas Ande along with a couple of his co-workers will be notified via email. Ande explains that they are obligated to manually verify the correctness of the match, which is mostly due to the fact that many of the screening tool's matches towards the sanction lists turn out to be false, as mentioned by both Ande and Gath. If actions have to be taken, they will turn to Skanska's HQ and their specialists for guidance.

The manual sanction lists screenings are tied to what Skanska and BoKlok calls Ethical Due Diligence (Skanska, 2020b), which are performed to ensure that business partners share the values of the Skanska Group and help manage any risks that could potentially damage the group's brand. Fardelius describes the due diligence process as an instrument for conducting background checks and identifying the true, "beneficial" owners of a counterpart (i.e. who the real owners of the counterpart is, that is, the ones who will gain from the transaction), which is also stated in Skanska's Group Sanctions procedure (Skanska, 2020d). This document also emphasises that every employee is responsible for conducting appropriate due diligence investigations. Persson says that once adequate information has been retrieved, everything is forwarded to the corporate counsel where searches in special databases are made, among which, one of them is the screening tool.

An Ethical Due Diligence is mandatory to perform when a business relation concerns intermediaries (suppliers who represent Skanska), joint ventures, and Sellers / Buyers of Land and Real Assets (Skanska, 2020b). Regarding suppliers, customers and others, a risk-based due diligence is to be performed, where the extent of the ethical due diligence depends on the overall risk associated with the counterpart (Skanska, 2020b). Spangenberg describes how the risk-based approach is built on two dimensions when the potential risk is assessed. Firstly, they look at the supplier's criticality to BoKlok, that is, how important the supplier is to the company's operations, where critical suppliers have to undergo a more formalized process. Secondly, for those suppliers deemed as not critical, certain guilds are given more attention as history and experience have shown that they are associated with higher risks. When Hansson contracts local entrepreneurs to carry out work at a BoKlok construction site, an ethical due diligence is usually not carried out. Instead, he and other Project Leaders are using the controls embedded into the supplier database to assure that the supplier meets the ethical requirements that BoKlok has. Thus, the ethical due diligence has already been carried out by central functions prior to entering the supplier database.

Ande explains that when performing a mandatory due diligence, a manual control of the business partner against the screening tool has to be performed before signing a contract. Concerning other business relations, a risk-based approach has to be taken where a sanction control may or may not be performed prior to establishing a collaboration between the two parties. Licenses to conduct both the automated and manual searches are handled by Skanska unit for Group Ethics (Skanska, 2020d).

Hansson (interview, April 3, 2020) briefly summarizes the screening tool and sanction lists as "*a list of such companies we do not want to work with, for different reasons*" (the authors' own translation). According to Fardelius, the screening tool will help BoKlok avoid conducting business with counterparts involved in economic crime, such as money laundering and corruption. Persson hopes that checking suppliers against various sanction lists will stop them from getting involved in shady businesses, such as the one Swedbank recently was involved in for example.

### 4.3.2 Consequences of the Screening Tool's Implementation

Ande points out that prior to the implementation of the screening tool, Skanska and BoKlok did not have any procedures for conducting such checks for controlling against sanctions. Fardelius and Persson both conclude that the screening tool has not resulted in additional or loss of tasks to their working processes. Perhaps most evident of the minimal effect the screening tool has had on the employees' current operations, is depicted as Eriksson and Hansson was barely even aware of its existence prior to the interviews. This is despite the fact that their roles as Project Leaders involve continuous interaction with different suppliers along the construction process. For instance, during our mail correspondence prior to the interview, Eriksson (e-mail, March 27, 2020) expressed;

*“I just talked to Magnus about the screening tool, since I do not even know what it is. [...] I am more than happy to help, but I know nothing about the screening tool or how it works.”* (the authors' own translation).

In general, the interviewees who are working in the operative part of the firm had not very deep knowledge about sanctions and the screening tool's functionality. So far, regarding acquisition of land, Persson has not yet had any sellers appearing on any of the screened sanction lists, but does acknowledge the importance of such sanction checks, especially for Skanska as a whole, who operates in many countries worldwide. In his opinion, it serves as a complement to the rest of the procedures incorporated into the ethical due diligence process. Gath explains that breaching sanction regulations could result in Skanska being prohibited from submitting offers in the US and UK for instance, which is an important reason for the screening tools implementation. He also mentions the risk of corporate fines, as well as losses of softer values such as customers' trust and the Skanska Group's attractiveness as an employer.

On another note, Lehrecke thinks that the implementation of a common tool and routine, such as the screening tool, establish better coordination within the organization when performing supplier sanction checks. Before, in his opinion, sanction controls were made on a more randomized basis, and were performed differently by different people, where some employees did not perform checks at all. Additionally, Lehrecke and Fardelius recognize that the sanction controls were more manual and Skanska and BoKlok relied on more external services to conduct the supplier background checks prior to the screening tool's implementation. The costs associated with switching to an in-house AI instrument, such as the screening tool, has not entailed any significant costs according to CFO Gath. As he was not very familiar with the screening tool's costs, Gath roughly estimated that the expenses of operating the AI should not be higher than around a million SEK per year.

The fact that the screening tool operates automatically every 24 hours is highlighted as a positive feature by many interviewees. Hansson declares that the availability of semi- or fully automatized IT tools such as the supplier database and the screening tool increases the probability of them actually being applied during a background check for instance. Persson and Lehrecke also mention that the minimum interference the screening tool has on their daily work processes is beneficial.



The more the company invests into ethical instruments or ethical business processes in general, the more it obligates the company to uphold their ethical promises, according to Spangenberg. By implementing better controls for avoiding unethical business partners, the more negative impact ethical violations will have on BoKlok if those controls were to fail.

Lastly, it is worth noting that there have only been a few cases where the screening tool has had a match correlating with any suppliers in the database. Persson thinks that the risk of having his counterparties caught in a screening control is very small since him and his colleagues within his business area already conduct thorough background checks, as well as being well acquainted with their counterparts. According to Kristina Andersson, a Development Leader (e-mail, May 7, 2020) from Skanska's sustainability unit for purchases, most of the screening tool's matches are "false". Gath has also encountered a couple of cases where he has been notified that suppliers of BoKlok have appeared on a sanction list, but after manual investigation has proven to be another company with a similar name to that of the supplier. Gath, furthermore, explains that an additional consequence of the screening tools implementation in relation to the suppliers code of conduct. Every counterpart that has a contract with an entity within the Skanska group has to follow the suppliers code of conduct, and if any sanctions against the counterpart exists or if they in turn conduct business with firms targeted by sanctions, Skanska can break the contract due to them breaching the prescriptions in the code of conduct.

#### 4.3.3 Limitations of the Screening Tool

Although the screening tool carries out daily searches on the relevant sanction lists in an automated fashion, there is still some grade of manual work necessary to successfully live up to the demands of Skanska's Group Sanction Procedures. As stated in one of the chapters above, Jonas Ande, among others, receives a notification whenever there is a match regarding BoKlok's suppliers, and to be able to verify if the match is true or not, there has to be a manual follow-up. If a match turns out to be true, the manager for the purchasing department is contacted to possibly terminate the agreement between Skanska and the affected supplier (representative Skanska's sustainability unit, email, May 11, 2020). Fardelius explains that they are obligated to manually follow up on every match they encounter.

Since the screening tool only automatically scans the supplier database, suppliers and businesses that are not inside the database are not being checked. Thus, when establishing a relationship with a new counterpart, the sanction check has to be manually conducted. Fardelius explains that they are required to manually perform sanction controls in the screening tool prior to buying land. He does, however, think there might be a risk associated with establishing a relationship with normal suppliers regarding sanction control since there are no mandatory checks required before adding them into the system. The negative consequences this might bring will still have the same impact as if it was a larger business partner. Another aspect is also the fact that the screening tool was not well known throughout the whole organization. Both project leaders interviewed, for instance, were not very acquainted, or even unaware, of its existence and function before the interviews. Ande commented that it still remains a challenge to communicate the importance of sanction controls and have that information to reach out to the entire organization.

Currently, only suppliers are being scanned by the screening tool. Spangenberg is open to perhaps extend the applicability of the screening tool and the due diligence work to involve customers as well. Emelie Ekelund, Sales Manager at BoKlok, does, however, highlight the differences in routines and processes between the customer side and supplier side of BoKlok, and the screening tool would probably not be necessary due to other control mechanisms already in place. On the customer side of BoKlok, they have close relationships with the banks to ensure that the potential clients are financed through fair means. For instance, they are very meticulous regarding their customers obtaining a loan commitment from a Swedish bank. One of the reasons is to ensure that the means of payment does not come from money laundering. However, Ekelund also recognizes the difficulties in conducting background checks on the banks themselves, but at the same time, the customers BoKlok works with are transparent and “uncomplicated” as she puts it. If any suspicions concerning a client reveals itself, they will conduct a more thorough check on said client.

## 5. Analysis

### 5.1 Why BoKlok Invest in Ethics

#### 5.1.1 Upside Opportunity and Shared Value Creation

Ethics are so embedded into BoKlok's daily life that the term has started to fade out in the organization's everyday language as they rather talk about being fair. Although the screening tool may constitute the latest in the line of concrete investments in ethics, it is obvious that BoKlok's ethical work is far more profound and far-reaching than implementing the screening tool. This is not least apparent in the company's extensive due diligence work, of which the screening tool constitutes one component. BoKlok invests in ethics both by committing resources to conduct the due diligence but also as they decide to forego business opportunities where the counterpart does not meet the ethical profile that the company demands. In fact, having an ethical business and being fair can thus almost be said to be of greater or equal importance to the ability to do business at all at BoKlok.

BoKlok's investments in ethics originate from the Code of Conduct, which in turn is deeply rooted in the company's core values. The core values accentuate what type of company, business partner and corporate citizen BoKlok wants to be and the Code of Conduct mediates how the organization shall behave to convert the company's self-perception from words into action. The core values seem to be embedded in a belief that an ethical approach not only protects the BoKlok brand, and by extension the entire firm, but also generates competitive advantages for BoKlok in the construction industry in the long run. As such, ethical investments are not made for the sole purpose of mitigating downside risks as they also include an upside opportunity which the company tries to exploit to attract more stakeholder support. The value of postponing the investment (C) is therefore driven down as postponement may result in the loss of competitive strength today, which in turn may inhibit the company's business opportunities. That is, when C is decreasing with a twofold purpose of ethical investments, the value of V from stakeholder pressure has to increase less to make the investment economically feasible as it exceeds  $I+C$ . In this sense, the empirical contribution differs from the theoretical predictions made by Husted (2005) and Cassimon, Engelen and Liedekerke (2016). Although pointing out some potential first mover advantages, Husted (2005) and Cassimon, Engelen and Liedekerke (2016) are very focused on investments in ethics as an instrument for creating strategic flexibility to minimize the corporate's downsides and not lose stakeholder support.

Furthermore, it became evident from the interviews that the entire society has forwarded their positions regarding ethics. As accentuated by several respondents, this is an effect of greater societal awareness, where the dividing line in the perception of what is ethically right or wrong is under constant locomotion. Without relating to a specific stakeholder, the value of V has increased as the general level of urgency and stakeholder pressure regarding ethics have intensified in the last couple of decades. Thus, it is not a single stakeholder that has induced BoKlok to invest in ethics. Meanwhile, social media and other digital platforms have provided

the stakeholders with increased abilities to voice their opinion both publicly and towards the firm. Therefore, as the ethical demands are amounting, the group of stakeholders possessing strong power against the company (Mitchell, Agle & Wood, 1997) is likely to have been widened as more people can get themselves heard. That is, the value of V is likely to increase with more strong stakeholders that can make their claims urgent (Cassimon, Engelen & Liedekerke, 2016). On the other hand, people's ability to express themselves could also be seen like the value of C is further decreased as BoKlok is exposed to additional risks of reputational damage from a wider group of people.

Effectively, by transforming their business model to meet the new ethical demands, BoKlok has found a way to reconceive their products (Porter & Kramer, 2011) and make ethics an essential part of their competitive strategy. When society has requested better ethical business manners, the company has been able to map out the societal needs and benefits that their products can solve. As such, BoKlok has responded with housing projects that guarantee to be built on a strong ethical foundation and fair conditions. Additionally, the investments seem to have contributed to redefine the firm's value chain (Porter & Kramer, 2011). Because of BoKlok's strong ethical profile, many employees are satisfied with their work and work conditions as their personal values align with that of the company. Satisfaction at work is likely to contribute to both employee motivation and wellness. Ultimately, by investing in ethics, BoKlok is able to avoid internal costs stemming from employee related externalities and thus, improve the productivity of their supply chain. Rather than just handling downside risks, BoKlok has been able use their ethical investments to combine value creation for the firm with value creation for society, without compromising on one parameter for the other. In line with Porter and Kramer's (2011) argument, BoKlok has stepped away from the original sphere of CSR to enter a situation where profit-making is based on shared value creation for both themselves and the society.

### 5.1.2 Who are the Powerful, Legitimate and Urgent Stakeholders?

With a general trend moving towards more ethical demands, it is not one stakeholder in isolation that has pressured BoKlok to invest in ethics, making the expected value of such investments to increase. However, based on Mitchell, Agle and Wood's (1997) framework, it is possible to distinguish stakeholders that seem to constitute more vital forces in BoKlok pursuit of an ethical business model.

#### 5.1.2.1 Customers

Customers undoubtedly possess strong power against BoKlok as they otherwise will withdraw their support and buy their residences from another construction company on the market. Without potential customers, no housing projects will be sold, generating zero profits and rapidly pushing the company towards bankruptcy. Remaining trustworthy and meeting the customers ethical demands therefore becomes essential to BoKlok's going concern. The legitimacy of the customers' claim is founded in the economic transactions and interaction that occur between BoKlok and the customers when they are to buy a residence from the company. With economic transactions taking place between the parties, it is also reasonable that the customer has the right

to make demands about how operations are done. However, the urgency of customers is dependent on what type of customer that is being discussed. Private customers, such as private corporations or individuals, have a more urgent claim than governmental customers in the sense of both time-sensitivity and criticality. The time-sensitivity arises as the private customers have a brand of their own to protect, making them more reluctant to assure high ethical standards in their purchases, whereas the governmental clients hide behind the Procurement Act. That is, when private customers have higher demands, BoKlok has less room for delaying the attention given towards those claims. At the same time, criticality is also higher as the private customers constitute the majority of BoKlok's customer base.

#### 5.1.2.2 Employees

Employees possess equally strong power as that of customers. If customers are necessary to sell the housing projects, employees are crucial to construct it. Receding stakeholder support from employees does at a minimum mean that BoKlok will not be able to attract workers with the right competences and in the worst case have no workers at all to conduct and coordinate the firm's business. Additionally, literally being a part of the organization, the source of the employees' legitimacy entails from the fact that they perform services and tasks for the company on a daily basis. The demands on ethical behaviour has also proven to be urgent from employees, which is accentuated by BoKlok's current employees whose ethical compass have greatly influenced their choice of employer. That is, if BoKlok wants their workforce to remain intact, they have to address the demands made to the employees without postponement. Otherwise, it is likely that they will leave for another company, which is actually the reason why some of the current employees ended up at BoKlok. Although, one can question if such demands from employees have urgently driven BoKlok to ethical investments or rather have been a self-fulfilling prophecy as BoKlok themselves have high ethical demands stemming from other stakeholders. As such, BoKlok will try to hire employees that meet their ethical standards, and thus attracts those employees that consider ethics important. Interestingly, one might wonder if the company would have perceived the employees as an important and urgent stakeholder if they were recruiting differently. Nevertheless, based on the current situation and BoKlok, the employees evidently have an urgent claim when it comes to ethics.

#### 5.1.2.3 Suppliers

Suppliers have an essential role in the construction industry and especially in the case of BoKlok who is vastly dependent on the strategic suppliers. Due to the very different dependencies of various suppliers, a dividing into two avenues, the strategic ones and the regular ones, are necessary. The strategic ones certainly possess a lot of power as of their central place in virtually all of BoKlok's projects. If one or two of these suppliers decide to withdraw their support and disengage from the firm, BoKlok will suffer massively to uphold their operations. Unlike the regular suppliers as well as customers and employees, each of the strategic suppliers also constitute a significant proportion of the stakeholder group, which makes the individual stakeholder even more powerful. The regular suppliers, which are more project specific, could be said to hold some power, although they are far away from holding the power as the strategic

ones. This is partly because they have a more local rather than company-wide presence and partly because they are more substitutable to other similar suppliers.

Similar to power, the strategic suppliers are supposed to have a more legitimate claim on the firm, based on the more in depth and partner-like relationship existing between the parties. Effectively, the extensive and continuous transactions between the firms creates a foundation for the strategic suppliers to have legitimacy against BoKlok. Regular suppliers, who also have transactions with BoKlok, could be said to have legitimacy against the firm, although not on the same level as the strategic ones. When it comes to urgency, it is lacking among both the strategic and other suppliers as they are yet to pressure BoKlok into making ethical investments. One reason for this could be that BoKlok already has higher ethical standards than the suppliers require, which is highlighted as the company is the demanding party rather than the supplier. In fact, the demanding situation between BoKlok and its suppliers instead supports the perception that customers have an urgent claim, as BoKlok, in a position of customer, demands ethical investments from the suppliers.

#### 5.1.2.4 Owners and Financiers

Being a co-owned subsidiary of Skanska and IKEA means that the two owners have an enormous power over BoKlok AB as they possess half of the company each. The enormous power is reflected by the fact that the company always has to relate to both of its parents when they evaluate different investments, which goes for investments in ethics as well. As such, all investments are likely to have a connection to either Skanska or IKEA, entailing from the parent companies' needs rather than BoKlok's. Operating under the Skanska flag, Skanska could be said to be the stronger part of the two owners as they possess 100% ownership over the operating subsidiary BoKlok Housing AB and 50% ownership over the concept BoKlok AB. In fact, the screening tool is an excellent example of the power possessed by the owners, emphasized by the fact that the tool seems to be primarily created to handle Skanska's global business risks and more complex structure. That is, the screening tool have been implemented by Skanska and then transferred to BoKlok. How much power the shareholders of Skanska and IKEA have towards BoKlok has been little touched upon in this case, but with the strict need to follow the parent companies' orders, it can be concluded that the owners possess tremendous power. Additionally, as of their positions as owners, Skanska and IKEA could be said to not only have a legitimate claim but also a legal right to make demands on BoKlok, effectively giving them the right to demand ethical investments.

Furthermore, Skanska is perceived, both internally and externally, as part of the construction industry's vanguard within ethics. Consequently, it is safe to assume that Skanska are applying ethical standards that goes beyond the industry mean, which is generally characterized as low. It is likewise safe to assume that Skanska are requiring that the same ethical levels are upheld by their subsidiary BoKlok, thus making Skanska's ethical claim urgent. It should also be stressed that we assume that IKEA's standards are similar to those of Skanska. Although, because of the fact that the daily business is driven under Skanska's structure through BoKlok Housing AB, the interview discussions naturally orbited around Skanska instead of IKEA.

In addition to the owners, BoKlok have other financiers with strong power and legitimacy in their environment, namely the banks and creditors. If Skanska has brought the screening tool to BoKlok, the banks and creditors have played a central part to pressure Skanska into making the investment in the first place with their covenants. As financial providers to the housing projects that BoKlok produce, the banks are evidently able to pressure the company into ethical investments as they otherwise withdraw the financing, with the inability to build projects as an imminent effect. Regarding urgency, the bank's ethical requirements stretch to the securement that the firm is not involved with sanctions, money laundering and other financial crimes. However, as described by the respondents, the likelihood of such an event is low at BoKlok, which is partly due the already established due diligence processes and partly because of their market focus in the Nordics. That is, BoKlok has already made the investments necessary to assure that they meet the banks requirements, effectively making the banks current claims not urgent.

#### 5.1.2.5 Government

Like any other company, it is important for BoKlok to comply with the current regulations in the specific market. The government's regulating power is also accompanied with its possibility to issue sanctions towards a party that violates certain restrictions. Being listed on a government's sanction list constitutes a major business risk for the firm as it may result in lost business opportunities or huge fines. Although, the sanctions, being more extensively utilized by the US government, seems to constitute a big threat for Skanska rather than BoKlok as of the parent company's worldwide operations with a significant part of its business on the US market. However, the government turned out to play an important role for BoKlok's operations not only as regulator and legislator as it also holds several other functions throughout the entire construction process. As mentioned above, the government can for instance constitute a potential customer through state-owned companies who purchase finished housing projects. Simultaneously, it can be a provider of land as well holding some sort of gatekeeper role to issue different approvals of progression during the construction process. As of the government's multifaceted role, BoKlok has to relate to the government throughout the construction, which gives it strong power as regulator but also as a business partner-like stakeholder. The legitimacy of the government's claim arises to a great extent from its authority and regulatory power. As of its right to decide to regulate markets, the government has also the right to claim that BoKlok follows the existing restrictions.

On ethics in general, the government's regulation seems to constitute a minimal standard that has to be followed. Beyond that, few evidences were provided that the administration should be a driving force when it comes to ethical behaviour at BoKlok. As of that, the government's ethical claims must be concluded to not be urgent at the time. However, the claim is rather a time-sensitive urgent matter when it comes to sanctions specifically, which is shown by the recent investment made in the screening tool to effectively meet the claim. The urgency is founded in the huge damages that may emerge from an event where Skanska or BoKlok are subject to sanctions. As of that, Skanska and BoKlok experience an urgency as they cannot afford to delay their attention to the claim.

#### 5.1.2.6 The Organization and its Communities

Spangenberg stressed that BoKlok as a company has an inherent will to liberate from the construction industry's bad reputation. However, one can genuinely question if the company can constitute its own stakeholder. Based on the perception that the firm must secure participation from all stakeholders necessary for the firm's going concern, we conclude that the stakeholders are part of the firm's environment, making the firm unable to be its own stakeholder. As such, the inherent pressure must stem from the individuals within the organization, which could be either the owners or the employees. That is, such an approach brings further evidence to the urgent claims of owners and employees.

BoKlok are part of the communities in which they operate as they integrate with people and exploit the resources within the local areas. Effectively, the community gains their legitimacy from the fact that it is directly affected by the organization's everyday actions and behaviour. The communities also appear to be among the stakeholder groups that have experienced an increase in power due to the emergence of social media and so forth, as an individual of the community can influence the BoKlok brand quickly with a single post. However, a sole person, who is not included in any of the other stakeholder, could not be said to have a legitimate claim on the firm as he may not be representative for the entire community. In fact, the person's opinion may stand in direct contrast to that of the community. As of that, there is a dividing line where the community struggles to possess both power and legitimacy at the same time. As a whole, the community has legitimacy but lacks power to force its claim. On the other hand, a single person possesses the power but loses the legitimacy as of the missing representativeness. Ultimately, the community has to assemble a bigger crowd to attain both attributes at the same time, for instance through a petition or similar. As society has forwarded their positions regarding ethics, the communities' claim must be said to become more urgent as a consequence. However, there is no evidence demonstrating that the community has occupied a more enforcing or urgent position than other stakeholders, who are also part of the general leap in ethical demands.

#### 5.1.3 The Reason why BoKlok has Invested in Ethics

Summarizing the analysis above, it can be concluded that private customers, employees and owners are the definitive stakeholders for BoKlok when it comes to ethics as they possess all three attributes of power, legitimacy and urgency (Mitchell, Agle & Wood, 1997). The government does also possess all three attributes, although it can be discussed whether or not the claim is urgent as it entails from the risk of being subject to sanctions. In this sense, we argue that the sanctions are more related to the opportunity cost (C) rather than the expected value of the investment (V), whereas the stakeholder support is related to the value of V (Cassimon, Engelen & Liedekerke, 2016). The argument is based on the fact that postponing investments does expose BoKlok and Skanska for potential risks of fines and lost business. Although being a governmental instrument, the enforcement mechanism is more characterized as a severe deferral risk than as building stakeholder support. Effectively, the risk of sanctions causes the value of C to decrease rather than the value of V to increase. Thus, when removing the sanctions from the government's claim, the urgency disappears since the government's ethical demands in general are not urgent.



As of that, the government merely possesses power and legitimacy, making them a dominant stakeholder instead of a definitive one. The same goes for state-owned customers, both strategic and regular suppliers as well as financiers, as they all seem to lack urgency in their claims. Lastly, the community is likely to be either a dormant or a discretionary stakeholder, as they may have hardship to hold both attributes depending on how the community is represented. In the best case, the community can obtain a position as dominant stakeholder if it can assemble enough people to have both legitimacy and power simultaneously. The various stakeholders' position is illustrated in figure 3 in appendix F, as they are plotted in Mitchell, Agle and Wood's (1997) stakeholder framework.

Relating Mitchell, Agle and Wood's (1997) stakeholder framework to Cassimon, Engelen and Liedekerke's (2016) theoretical function, it seems like customers, employees and owners have been the most salient stakeholders to increase the value of  $V$  to exceed that of  $I+C$ . Additionally, the government has been likewise important as they influence both sides of the equation. As a dominant stakeholder, the government may have some influence on the value of  $V$ , whereas the sanctions are their main contribution as it drives down the value of  $C$ , resulting in a scenario where  $V$  can exceed  $I+C$  at a lower level. The other stakeholders are presumably having some effect on the value for  $V$ , however, without an urgent claim, it is not likely to be significant. In total, the increasing stakeholder pressure and a falling opportunity cost have entailed a situation where  $V > I+C$  have been experienced at BoKlok.

The salient stakeholders being customers, employees and owners also aligns well with BoKlok's shared value strategy (Porter & Kramer, 2011). With a reconceived product to meet the new ethical demands, BoKlok are able to create increased value for their customers. Furthermore, with a redefined value chain, increased value is distributed to the employees through wellness and work satisfaction. As such, the shared value creation for both BoKlok and the society is mainly achieved from increased value creation for customers and employees, which in turn spill over to the rest of the society and effectively back to the firm and its owners.

## 5.2 How does the Screening Tool function?

### 5.2.1 The Screening Tool as an Organizational AI Instrument

The four categories of artificial intelligence (figure 2 in appendix D) presented in Huang and Rust (2018) are relevant to explain at what intellectual state the screening tool currently is at, thus helping assess its role to the organization. The initial category of AI is the mechanical level, which is characterized by the AI's ability to perform repeated tasks on an automatic basis, absent the capacity to understand its environments. The screening tool undoubtedly has traits similar to the mechanical level as it conducts searches on predetermined databases, being the UN, US, and EU sanction lists, and matches Skanska's supplier database to said lists. The tool can also distinguish if a supplier from the database exists in any of the sanction lists. The AI is even automatized to conduct searches by itself every 24 hours. However, mechanical level AI is unable to make sense of the data it processes (Del Prado, 2015), lacking an analytical ability. Comparable limitations can be found in the screening tool, which always requires a manual follow up, or

analysis, whenever it makes a discovery on a sanction list. Most of the personnel that have been involved in the screening processes recounted that the majority of findings on the list by the screening tool are false, further highlighting the AI's inability to understand the data it is collecting. Therefore, the subsequent steps after getting notified by the screening tool is handled by the personnel responsible for the supplier it concerns, as depicted by Ande. With this in mind, it is safe to conclude that the screening tool does not reach the second category of intelligence which is the analytical level, according to Huang and Rust (2018).

The two most advanced categories, which are the intuitive and empathetic levels, concerns tasks such as complex decision-making which ultimately becomes the next step in the sanction list screening process if a true match were to be discovered. None of the data sources gave any indication towards the AI possessing such features, and deeming its lack of analytical ability, tasks regarding decision-making in different scenarios are completely out of the scope of this tool.

Regarding the screening tool's competence to replace jobs at BoKlok and Skanska, there is currently no indication that any jobs have yet been substituted or will be in the future. This statement is based upon the fact that BoKlok previously had no sanction lists screening procedures in place, according to several respondents. Further support to the statement comes from the fact that some of the respondents did not even know it existed. Effectively, the screening tool deviates from the literature as it constitutes an add on feature to the existing due diligence work, rather than replacing any of the previous tasks conducted (Davenport & Kirby, 2015; Huang & Rust, 2018). The deviation is likely to entail from the screening tool's very narrow and specific objective to counter financial crimes and terrorism, which only constitute one part of the entire due diligence and ethical work. As of that, the other processes are still necessary to assure that the company's full spectra of the ethical demands are met.

In some cases, external parties were contracted to conduct background checks of counterparts, which might have included a sanction inspection. As both Davenport and Kirby (2015) and Huang and Rust (2018) implies, the first tasks that are replaced are the mechanical ones, followed by the analytical and intuitive ones. That is, the external parties, and not the employees, are likely to be the first ones to have their tasks affected by the screening tool. Figure 2 also suggests that the AI's intelligence will increase the more time passes due to the fact that greater improvements to the AI take longer time for humans to develop. Since the screening tool has merely been operating for less than a year, it is apparent that its level of intelligence still remains at a low level. In the future, the screening tool might perhaps be capable of assisting with analytical tasks and decision-making, thus induces a need for BoKlok and Skanska to transform the tasks associated with background checks of suppliers in order to better coexist with the AI tool.

### 5.2.2 The Benefits of the Screening Tool

As many previous studies (Davenport & Kirby, 2016; Lacity & Willcocks, 2016a; Lacity & Willcocks, 2016b; Tschakert et al., 2016; Ilcus, 2018; Kokina & Blanchette, 2019) suggest, AI can be used to reap benefits such as cost advantage, enhanced process quality and increased

efficiency, and according to Huang & Rust (2018) these occur already at the mechanical AI level. Even though the screening tool's advantages might not be notable as of this point in, there is still evidence that indicate an addition of the benefits just listed. Firstly, there is a cost advantage to implementing the screening tool. Manually conducting daily sanction screenings on thousands of suppliers would entail numerous working hours and would be expensive for an employee to perform. The automatic screening tool on the other hand, which according to Gath did not require a significant investment, is an inexpensive way of carrying out the task, and most certainly faster and more effective as well.

Previously, BoKlok had less routines for conducting background checks and sanction controls, and the company relied more on external parties when performing those, thus, the quality was arguably inferior than what it presently is. The screening tool provides fast response and since it can operate automatically, the task will not be skipped as the case sometimes was before its implementation. Both enhanced quality and faster response time will lead to a better regulatory compliance, which Lacity & Willcocks (2016a) highlights as one of the main benefits of AI. Without the screening tool it would be impossible to conduct adequate sanction controls, thus failing to wholly comply with the sanction's regulation of the UN, US, and EU. With the screening tool, the Skanska Group has the ability to screen their entire spectrum of suppliers and get direct notification every day, which was previously unattainable.

### 5.2.3 Control Mechanisms and the Screening tool

In terms of controls, the three types of control mechanisms presented by Lewis (2003) is effective in establishing what role the screening tool represents in the risk-management process at BoKlok. Since the screening tool targets suppliers, intermediaries, and joint venture parties, the preventive controls should be more appropriate according to Tse et al. (2019) who finds such controls are more appropriate for upstream activities. Indeed, the screening tool provides preventive control when the ethical due diligence requires it to do so. If a supplier or counterpart is deemed crucial enough to demand a thorough due diligence assessment, the screening tool will be used prior to a contract becoming established. Thus, the screening tool can prevent BoKlok from cooperating with entities or individuals with sanctions directed at them, which in turn avert the firm from accidentally behaving unethically. The downside and flaw with the screening tool in terms of preventive control is that there is still a risk that BoKlok initiates a collaboration with a supplier even if they have not been subjected to a sanction control prior to the start of the collaboration. In short, the screening tool only provides preventive controls if the counterparty is qualifying for an ethical due diligence process.

If a due diligence including a sanction control is not performed, the supplier, if approved by the other ethical control mechanisms embedded in the operations, will be added to the supplier database. That is, no upfront sanction screening is made which removes the AI's preventive control attributes. However, if the supplier database is connected to the screening tool, the supplier will be screened on a daily basis. Thus, the screening tool also functions as an in-process control mechanism in this sense. If it turns out that the supplier in fact is subjected to sanctions

or becomes subjected to sanctions after they have signed a deal with BoKlok, the screening tool will pick up the information and notify relevant personnel.

Regarding the last type of control, the recovery controls, the screening tool are absent of such mechanisms. However, it does enable another type of control mechanism which can be regarded as recovery controls. As stated by Gath, the supplier code of conduct contractually obligates the supplier to ensure a certain degree of ethical behaviour when working along Skanska. If a supplier were to exist on a sanction list, Skanska has a legal right to terminate the contract. While in this case, the cooperation with the unethical supplier has already been established, the supplier code of conduct permits the entities within the Skanska Group to implement corrective actions by terminating the relationship to salvage their reputation and consciousness, which could be viewed as a type of recovery control. In such a case, the screening tool can help enable this mechanism by alerting BoKlok about unethical behaviour related to sanctions. But as stated above, this mechanism is not built into the function of the screening tool, making the preventive and in-process control mechanisms the core features.

## 6. Concluding Remarks and Discussion

### 6.1 Conclusion

In line with Cassimon, Engelen and Liedekerke (2016), our case study at BoKlok indicates that both stakeholder pressure and opportunity costs are present parameters when it comes to investing in ethics. Based on Mitchell, Agle and Wood's (1997) framework, the most salient stakeholders that have caused the expected value of ethical investments to increase, and thus have pressured BoKlok to make such investments, consists of private customers, employees and owners. Several other stakeholders with strong influence are also present in the firm's environment, however, their ethical claim against the firm is not perceived as urgent enough to require immediate attention at the time being. On the other hand, as of Skanska's global operations, the severe risk of governmental fines and sanctions have simultaneously driven down the opportunity cost to approach zero, at least for the ethical aspects of financial criminality, money laundering and terrorism.

However, as the society's ethical demands have raised, our case study has also proven that ethical investments are not only a way of handling downside risks as it can also entail upside opportunities and competitive advantage. As such, by pursuing Porter and Kramer's (2011) strategy of shared value creation, BoKlok stands in contrast to the theoretical predictions of Husted (2005) and Cassimon, Engelen and Liedekerke (2016), who very much focus on ethical investments as an instrument used to handle potential risks. Through reconceived products and a redefined value chain, BoKlok have been able to increase the value creation for customers and employees, which spills over to increase the value creation for the society and the own firm in the extension. Effectively, BoKlok have utilized ethics to move beyond the notion of CSR to target increased value creation for themselves and the society.

Drawing from the empirical data, it is quite obvious that the characteristics of the screening tool corresponds to the mechanical AI level in Huang & Rust's (2018) model. The AI's tasks involve routine based searches but leaves the entire analytic and decision-making tasks to the human workforce. As the authors suggest, the mechanical level AI is the most common, which is true in the case of the sanction lists screening process. Also, according to Huang & Rust (2018), rather than completely taking over jobs in an organization, AI will incrementally replace human labour one task at a time. In the case of BoKlok, however, there is no evidence that any existing tasks performed by human personnel have been replaced by the screening tool. Instead, the AI has enabled another set of tasks to be performed, namely the sanction lists controls, that has not been possible to handle on a manual basis. Therefore, it can be concluded that BoKlok utilizes AI as a way to supplement the already existing processes in securing an ethical supply chain.

The main attributes of the screening tool are, as established by Huang & Rust (2018), increased quality, cost reduction, and efficiency when BoKlok conducts background checks of their suppliers. These benefits help the firm comply with regulations, as Lacity & Willcocks (2016a) point out as a possible outcome of incorporating AI into organizational routines.

In this case, the screening tool also helps BoKlok decrease downside risk by mitigating the probability of conducting business with entities or individuals targeted by sanctions, thus preventing the whole Skanska Group from being affected by corporate fines or prohibition against submitting offers in certain regions. Since the government has an urgent claim as a stakeholder related to sanctions, the screening tools can be viewed as a direct answer to that claim. In accordance with Husted (2005) and Cassimon, Engelen and Liedekerke (2016), the screening tool investment is more targeted towards risk mitigation rather than an attempt to create shared value as proposed by Porter and Kramer (2011).

This type of security is achieved by predominantly preventive and in-process controls. The in-process controls automatically targets all suppliers connected to the screening tool, whereas the preventive control is only achievable if a manual search is conducted on specific counterparties. Just as Tse et al. (2019) advocates, these are also the most fitting control mechanisms for controlling upstream activities which could explain why the screening tool has gained more traction on the supplier side of BoKlok in relation to the customer side.

## 6.2 Contributions

With our case study at BoKlok, the initial purpose of contribution to the literature has been achieved. Empirical material has been presented to further test the theoretical predictions of Cassimon, Engelen and Liedekerke (2016) and Porter and Kramer (2011). The empirical material supports the predictions made by Cassimon, Engelen and Liedekerke (2016) regarding stakeholder support and opportunity costs, but also identifies a necessity to extend the theory to be more comprehensive. The extension relates to the opportunity cost, which also has to acknowledge investments in CSR as a potential competitive advantage, in a shared value-like sense, and not just a risk management tool. As such, gaining competitive advantage from an investment today will certainly decrease the value of waiting with the investment. In addition, empirical material has also been provided as to how AI can be leveraged to secure ethical supply chains, contributing to a currently limited research stream. The paper showcases how AI within the field still seems to be on the lowest level of intelligence, which is not surprising as Huang & Rust (2018) point out that mechanical and analytical AI are predominantly today. Hopefully, the contribution can open up to more studies being undertaken within the research field to identify more advanced levels of AI relating to controlling ethical supply chains in the future.

On the practical side, the paper provides empirical evidence to the practitioners as to why ethics remain an essential topic for corporations to consider. Additionally, the evidence highlights that investments in ethics can be leveraged to constitute a source of competitive advantage and not only a costly burden for the firm, as it supports the perception that there is no contradiction between doing good and making profits. As a result, it could help managers to make ethical investments economically defensible, thus, causing more investments in ethics to be undertaken. The report also highlights how artificial intelligence can be utilized by an organization to monitor upstream activities in its supply chain by implementing preventive and in-process control mechanisms. In doing so, it also presents how tasks can be divided between the human personnel and the AI in order to maximize quality, cost reduction, and efficiency.

## 6.3 Discussion and Limitations

One thing that might have affected the empirical data regarding which stakeholders that have pressured BoKlok to invest in ethics, is the fact that the paper initially had a narrower object than the current. From the start, the purpose was to look at why the screening tool specifically has been implemented, rather than looking at ethics holistically. After our upfront conversation with Jonas Ande, it was decided that the aim should be widened to cover a broader perspective on ethics. However, since the new purpose was not fully established at the time of requesting participation from the respondents, there is an obvious risk that our initial purpose could have affected the subject that was presented to the respondents in connection to the request. Even though the new purpose was clear as the interviews were held and the questions were formulated correspondingly, there is a risk that the interviewees were biased because of the expectation created at the time of request. As of the clear intention of avoiding sanctions, which are issued by governments and international agencies, such bias runs the risk of highlighting the government's role more than it otherwise would. Although, Persson described the important role the government plays throughout the construction process, which means that the government's position as a strong and powerful stakeholder should not be belittled based on the bias.

What is striking is the fact that almost all stakeholders mentioned by the respondents seem to possess power and legitimacy. We deem that such a result is not odd. On the contrary, we suggest that the first stakeholders who will come to mind of the respondents are likely to be those that have a strong connection and possibility to influence the firm. Having the ability to influence the firm means that the stakeholder must possess power and as of the close relationship between legitimacy and power, the same stakeholder probably possesses a legitimate claim as well to gain authority. However, we argue that it might not be equally logical or natural for the respondent to concretize the stakeholders that are merely present in the periphery as of their lacking legitimacy or power. Our assumption aligns with Mitchell, Agle and Wood's (1997) perception that power constitutes the strongest attribute even if it cannot be viewed in isolation. As of that, we conclude that there may be risk that some stakeholders possessing other combinations of attributes than power and legitimacy could have been missed out.

Furthermore, BoKlok is a co-owned subsidiary to Skanska and IKEA, which makes the stakeholder group of shareholders or owners a bit different from other firms' shareholders, who usually consist of individuals or banks and funds that manage individuals' money. As such, the two owners, possessing 50% of the BoKlok concept each, have an unusually strong position in comparison to e.g. the parent Skanska who are listed on the NASDAQ Stockholm and thus have their shares split between thousands of owners. This strong position is especially apparent for Skanska who also possess 100% of the shares in BoKlok Housing AB. Additionally, both the parent companies have operations and a brand of their own to build, which an individual stakeholder may not have, and is therefore suggested to be more reluctant to recognize the importance of ethics. These characteristics become evident through Skanska, who have high ethical standards of their own and are more or less able to impose BoKlok to have the same. A single stakeholder in e.g. Skanska are not likely to possess that ability. As of that, we argue that

in another company, with a differing ownership setting, the role of owners would perhaps unfold differently.

Regarding some employees' unawareness of the screening tool's existence and generally low knowledge of its functionality, they employees do not know how much the screening tool supports them in their everyday activities. As such, it is only those holding positions where the mandatory pre-contracting scan is part of their due diligence work, such as the District Managers who purchase land for upcoming projects, that notice how they are helped in their operations. This is in no way surprising based on how the screening tool is set up. Firstly, the suppliers, and not the person contracting the supplier, are responsible for entering themselves into the supplier database, based on which the mechanical screens are conducted every 24 hours. Secondly, the screening tool are set up to instantly contact central persons, e.g. Jonas Ande, for a manual inquiry if an automatic screening process gives a hit. That is, the employees working in the operative part of BoKlok never gets in contact with the screening tool as it works in the backlog of the business, which obviously affects their knowledge. However, as a control mechanism, we believe that an increased awareness of the screening tool may prove beneficial to the firm.

Firstly, the screening tool would get a clearer purpose throughout the organization, giving the employees an increased sense of support and security as they know how the enterprise systems are backing them up. When the employees are about to select a supplier in the supplier database, they are assured that the supplier is not appearing on any sanctions list, which may cause the firm huge damage. In addition, an increased awareness for the screening tool and its purpose is also likely to entail an increased understanding of the severe risk that sanctions expose especially Skanska but also BoKlok to. Knowledge about the risks is likely to give employees higher incentives to use suppliers that are in the supplier database or assure themselves that a new supplier is registered in the database, and thus gets scanned, prior to being contracted to conduct work for the company. Effectively, with scanning being done prior to contracting, the scan becomes a preventive rather than an in-process control for a big proportion of the risk-based supplier as well. According to Tse et al. (2019), the screening tool would constitute a more effective control mechanism in this way as preventive controls are more suited for the supply chain's upstream activities, of which the suppliers are a part. As such, BoKlok would benefit from increasing the knowledge of both sanctions and the screening tool throughout the organization. To achieve increased knowledge, we suggest that education specifically related to sanctions and the screening tool should be mandatory for all new employees, which is continuously repeated every year or two to maintain the knowledge among the workforce.

## 6.4 Suggestion for Future Research

For the purpose of why firms invest in ethics or CSR, both this paper and Cassimon, Engelen and Liedekerke (2016) have applied a single case study methodology, with BoKlok and IHC Caland respectively, to test the theoretical predictions made by Cassimon, Engelen and Liedekerke (2016). Being, to our knowledge, only tested on two single case studies, the theory still requires a stronger foundation of empirical material to stand on. As of that, we suggest that future research should make further examinations of the assumptions in various contexts to establish the



theoretical strength. Preferably, multiple case studies or, if possible, quantitative studies, could be conducted to create a stronger empirical base and include a bigger amount of empirical settings simultaneously. If the studies are being designed as case studies, it would be further enhancing if the case could provide an actual investment cost as it would allow a more mathematical approach to be taken. An actual investment cost would put the parameter  $I$  more into play in the equation  $V > I+C$ , which would enable a more direct comparison between the investment's expected value and cost to be made.

In line with Porter and Kramer (2011), our belief is that all companies that want to be a relevant player in the future markets have to recast their business models to abandon the traditional capitalism and embrace a CSV perspective instead. As CSV fosters innovation and development on both firm and societal level, we expect firms to discover new ways of CSV. As such, we believe that future research has to continue their application of CSV on empirical material to identify new practices and, thus expand Porter and Kramer's (2011) initial framework.

Furthermore, AI and digitalization is strongly progressing with new abilities and features being discovered almost by the day, and the benefits to be generated from the AI seem to be quite established in the literature. Although, there is still an empirical gap as to how AI has been utilized to monitor ethical behaviour in firms' supply chains. Because of the limited literature, there is still a need from both practitioners and the academy to bring further evidence on AI and the monitoring of ethical supply chains. Effectively, we suggest that future research could dig deeper into this matter. Additionally, the AI presented in this case from BoKlok only corresponds to the lowest level of AI according to Huang and Rust's (2018) framework, namely the mechanical level. Therefore, we see a necessity for future research to investigate how an AI meeting the higher levels of intelligence may be leveraged to control the firm's supply chains and the benefits that may entail from such an advanced robot. A third avenue of AI research and supply chain ethics entails from the fact that the screening tool has a specific goal of monitoring sanctions while ethics contains an array of different spectrums. That is, future research could also look at how AI has been utilized in other ethical matters. We believe that research in the field of how to utilize the new possibilities that arise from AI could prove beneficial for the practitioners, the literature as well as the entire society.

Lastly, Huang & Rust (2018) explains that the level of intelligence of artificial intelligence will increase the more time passes. This is due to the fact that humans need additional time to be enabled to create and develop more advanced levels of AI. Since the screening tool is a fairly new invention, and thus remains at the first step of mechanical AI in the authors' model (figure 2 in appendix D), longitudinal studies within the subject would provide data on how AI develops over time and eventually reaches the next steps in the model. In relation to this, such studies could also identify to what degree different human tasks incrementally become replaced with the AI, as well as describe how human employees have to restructure their working processes to coexist with the AI.

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## Appendix A – List of respondents

<b>Name</b>	<b>Position</b>	<b>Date of interview</b>	<b>Background</b>
Jonas Spangenberg	Chief Executive Officer	2020-04-08	Started in the construction industry in 1989 after finishing his University studies and joined Skanska in 1998-1999. In Skanska, Jonas have held positions as District Manager, Sweden Manager and Manager of the Nordics before taking the role as BoKlok's CEO approximately 10 years ago. Is responsible for both the operations in BoKlok Housing as well as the concept BoKlok AB.
Lars Gath	Chief Financial Officer	2020-04-16	Started as CFO at BoKlok in 2010. Before that, Lars have had the position as CFO in several other Skanska Business Units, such as Skanska Residential Development Nordic and Skanska's business abroad outside the Nordics. Had also worked in the construction industry at another company for a few years before joining Skanska.
Jonas Ande	Human Resource Manager	2020-04-08	Started in the construction industry in 1992 as a wood worker trainee. Right before the new millennium, Jonas got a Human Resource role within his company and have both studied and held different Human Resource roles since then. Joined Skanska in 2008 where he, amongst other things, have had the role as negotiator at the Human Resource department. Started as Human Resource Manager at BoKlok in 2019 where he also is responsible for Ethics. Is responsible for the screening tool at BoKlok as well.
Bengt Fardelius	Business Development Manager	2020-03-27	Started at Skanska in 2001, working with business development and land purchasing. Joined BoKlok 10 years ago where he has held various roles such as establishing BoKlok in Stockholm, growth issues at both regional and national level as well as being Business Development Manager.
Johan Borg	Purchasing Manager	2020-04-03	Have been working within the construction industry since the beginning of his working career and joined Skanska in 2007. Have also been working as a seller of residential but have been entirely dedicated to the purchasing side through different purchasing roles for the last 20 years.
Emelie Ekelund	Sales Manager	2020-04-14	Started at Skanska 18 years ago as a seller of residential. Have also been involved in establishing Skanska's residential development outside the big city areas in Sweden. Holds the position as Sales Manager at BoKlok since a few years back.

Magnus Persson	District Manager	2020-04-03	Have been active in the real estate industry since late 1990s through various roles such as real estate broker and project leader as well as working in the production of residential. Joined BoKlok 4 years ago as a market analyst and has been District Manager the Öresund district in Sweden for the last 2 years.
Thomas Lehrecke	District Manager	2020-04-08	Started at Skanska in 1997 after finishing his University studies, where he worked with road and construction. Joined BoKlok in 2016 after several years at different positions within residential development at other construction companies as well as the municipality. At BoKlok, Thomas started as a Business Developer before switching to District Manager and is responsible for the Southwest district in Sweden since 2018.
Sofi Eriksson	Project Leader	2020-04-03	Started in the construction industry in 2001 as a Seller of residential. Joined BoKlok 10 years ago, of which the first seven years have been as a Seller of residential and the last three as a Project Leader in the Öresund district in Sweden. Since November, Sofi is also a team leader in the Öresund district.
Johan Hansson	Project Leader	2020-04-03	Have been working in the construction industry since 2010, initially as an engineer and Construction Manager at the National Defense in Sweden, constructing roads and bridges in vulnerable areas of the world. Joined BoKlok 2 years ago as a Project Leader in the Öresund district in Sweden.

## Appendix B – Keywords used in literature review

<b>Ethics and CSR</b>	<b>Artificial Intelligence</b>	<b>Control Mechanisms</b>
Why do firms invest in ethics Reasons to be ethical Reasons for CSR Importance of business ethics Ethical, Value chain Ethics Corporate Social Responsibility CSR Stakeholder theory Stakeholder	Digitalization. Artificial Intelligence AI Benefits Advantages Take over jobs. Labour replacement. Job replacement. Human vs. AI Porter Future Data analytics	Control Control mechanism Preventive Preventive controls Detective Detective controls Reactive Proactive Risk management Supply chain risk management External controls

## Appendix C – Stakeholder Theory

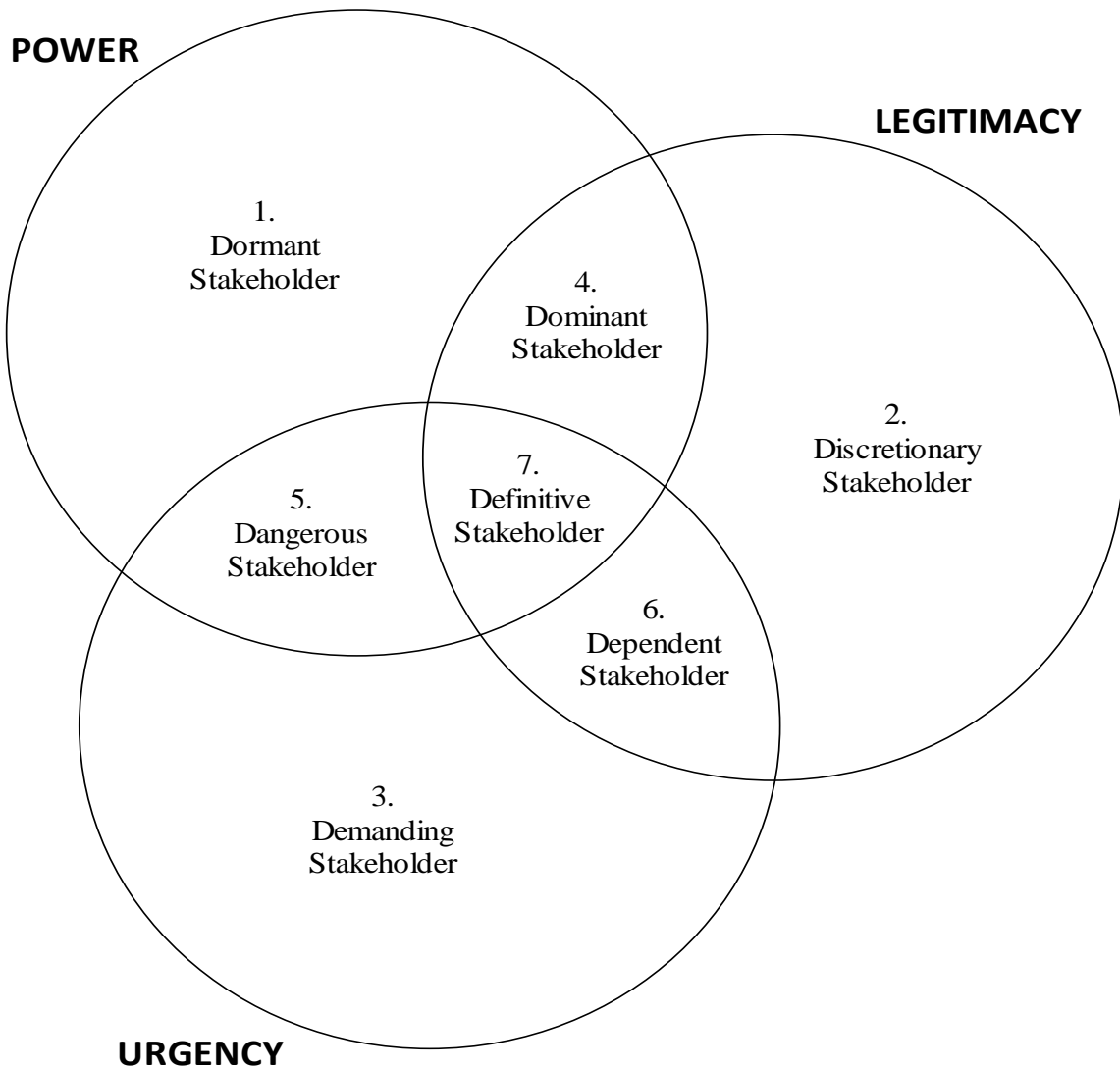


Figure 1. Source: Mitchell, Agle & Wood (1997, p. 874).

## Appendix D – Four levels in Artificial Intelligence

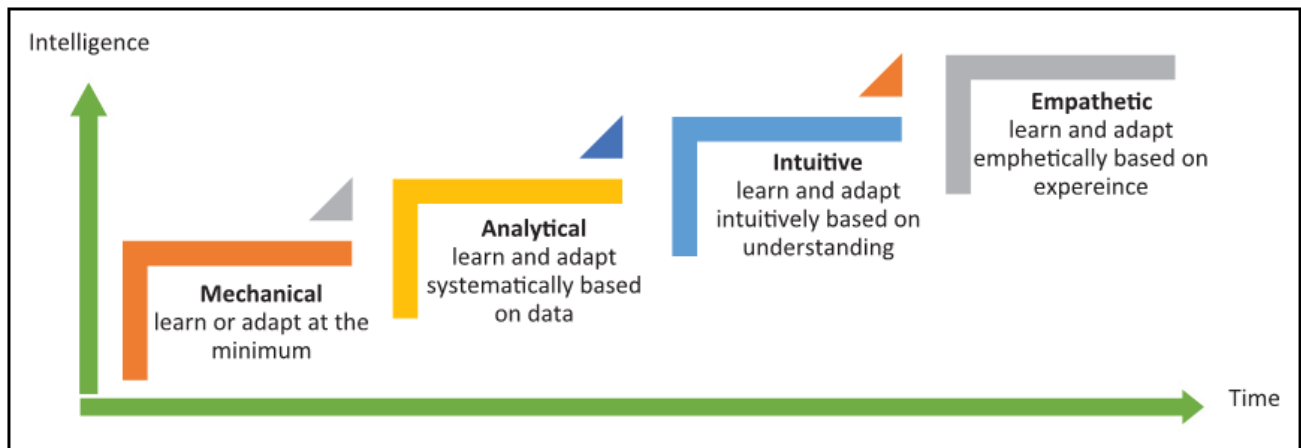
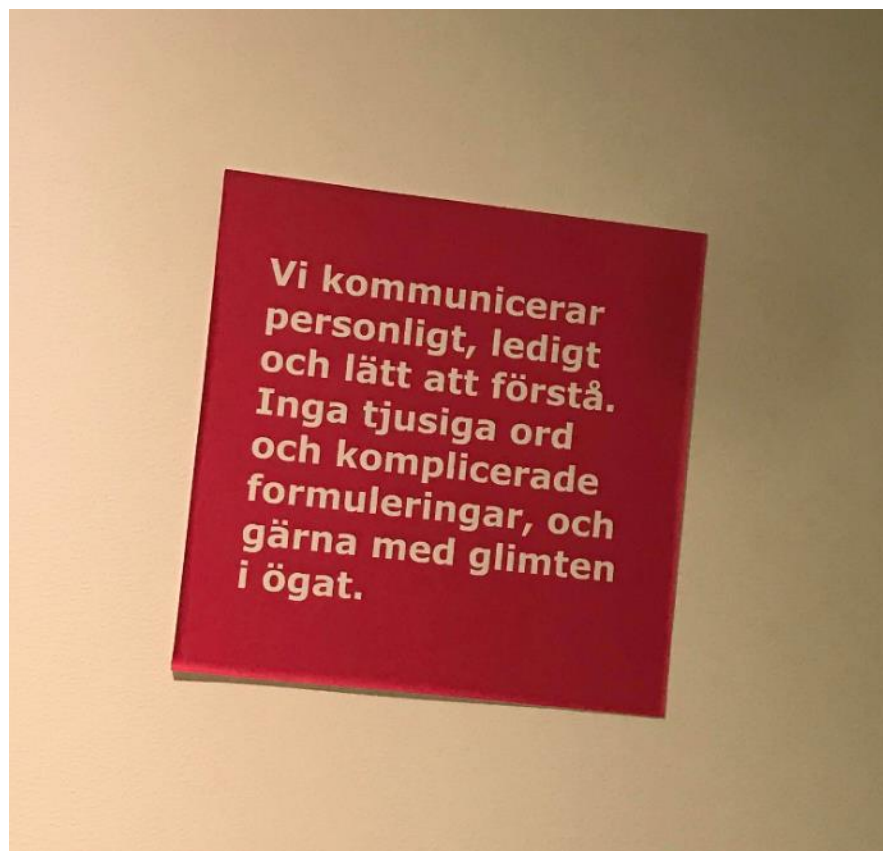
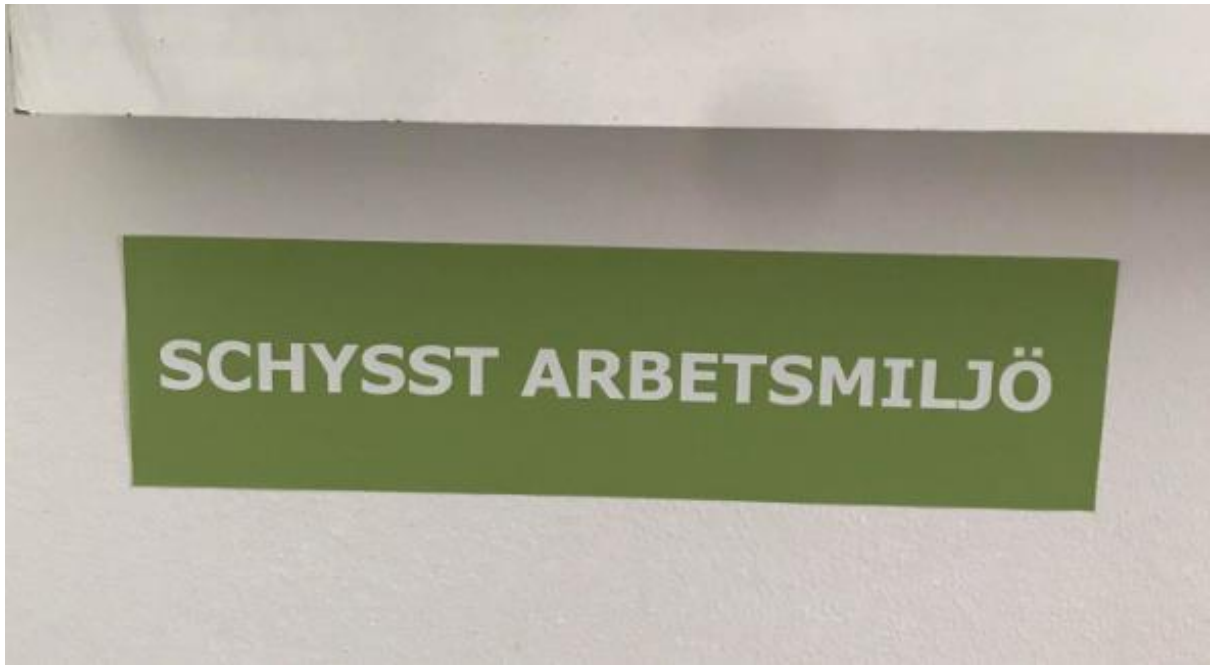


Figure 2. Source: Huang & Rust (2018, p. 158).

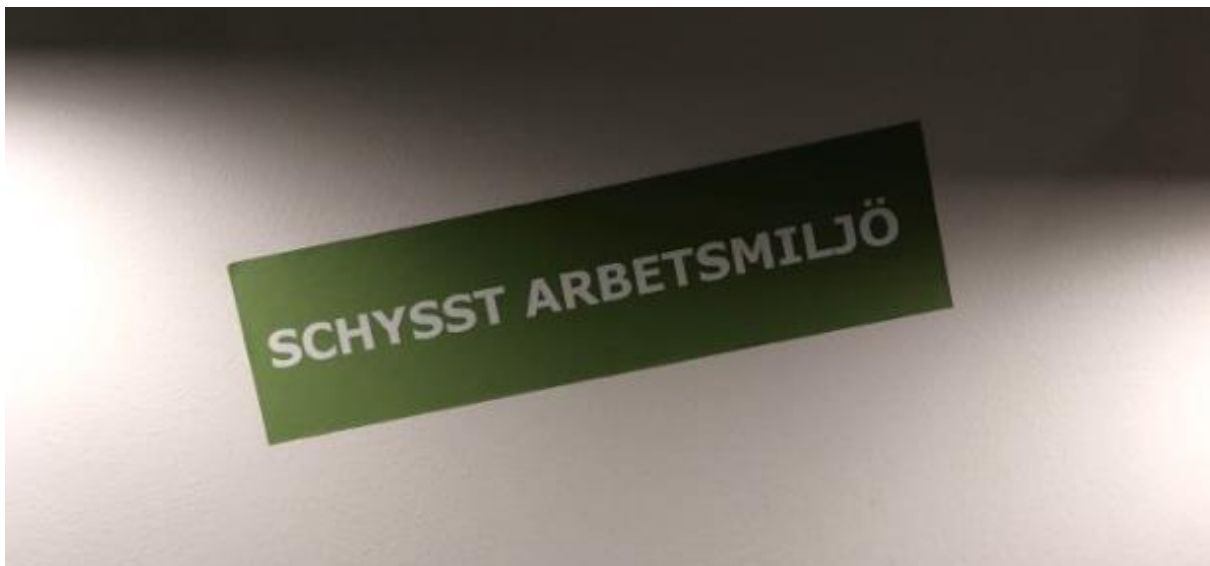
## Appendix E – Pictures of messages on the walls



Picture 1. In English: We communicate personal, simple and easy to understand. No fancy words and complicated formulations, and preferably with a twinkle in the eye.

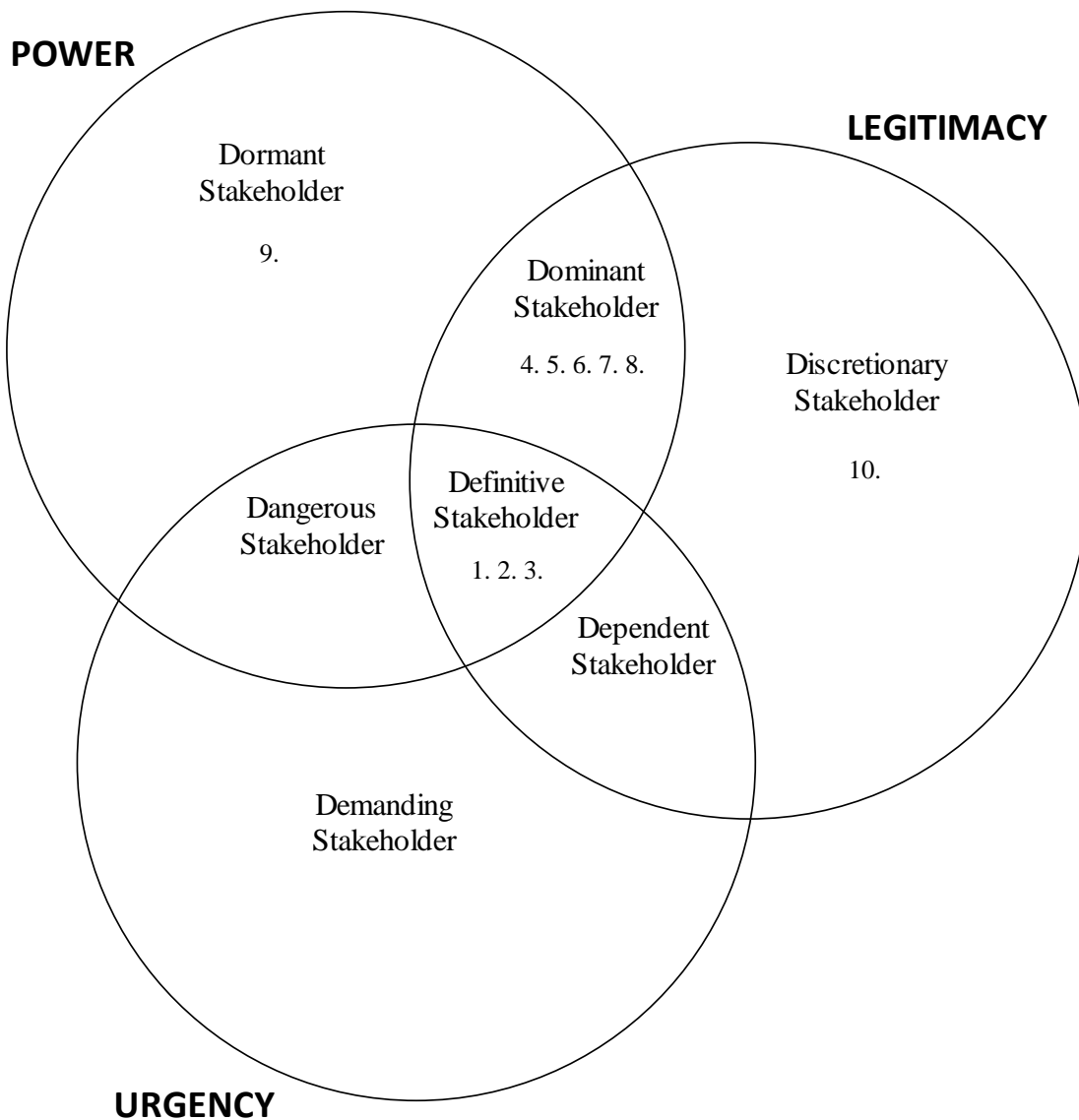


Picture 2. In English: Fair work environment.



Picture 3. In English: Fair work environment.

## Appendix F – Stakeholder analysis



<b>Definitive Stakeholders</b>	<b>Dominant Stakeholders</b>	<b>Dormant Stakeholders</b>	<b>Discretionary Stakeholders</b>
1. Private Customers	4. State-owned Customers	9. Community**	10. Community**
2. Employees	5. Strategic Suppliers		
3. Owners	6. Regular Suppliers		
	7. Financiers		
	8. Community**		

Figure 3. Stakeholder analysis. Adopted from Mitchell, Agle and Wood (1997, p. 874).

\*\* To highlight how the community's position is contingent upon the context, the community is plotted at all of its possible positions, namely Discretionary, Dormant and Dominant stakeholder.